

PRICE WRECKING CATALOG No. 185

BARGAINS

Building Material

Lumber and Millwork
Plumbing and Heating
Hardware and Paint
Machinery and Supplies
General Equipment

—bought at Government and Forced Sales

—Address—

HARRIS BROTHERS CO.
35th and Iron Streets, CHICAGO

Let THIS Protect You In All YOUR Buying!

**CAPITAL
\$10,000,000
STOCK**

OUR GUARANTEE

WE GUARANTEE that every article of material and merchandise in this book is exactly as illustrated and represented, that every article you receive will meet your highest expectations in value, service and satisfaction.

WE GUARANTEE to satisfy you in all your dealings. If you are not entirely pleased we will permit the return of any new material or merchandise purchased from us at our expense. We will then return your money with any transportation charges you have paid, or we will exchange the returned goods or satisfy you otherwise.

This guarantee covers every purchase from this book, large or small—written with protection to you in all your buying, as its only object. Every promise, every statement, every word, is backed by \$10,000,000 and our entire institution

**HARRIS BROTHERS
COMPANY** 35th and Iron Streets
CHICAGO

**29 YEARS
HONEST
DEALING**

**Everything
to Build
Improve
and Furnish
Your Home
Everything
for
The Factory
Workshop
and Farm**

Builders' Supplies	Prepared Roofing	Steel Roofing
Structural Steel	Heating Plants	Furniture
Portable Buildings	Plumbing Material	Rugs and Carpets
Lumber-Millwork	Cut-To-Fit Houses	Gasoline Engines
Harris Homes	Paint	Steel Rails
Storage Tanks	Hardware	Belting and Hose
Machinery	Hog Troughs	Cream Separators
Farm Impl'm'ts	Wire and Fencing	Pipe-Fittings-Coverings

HARRIS BROTHERS COMPANY, CHICAGO

Price Slashing Sale of Bargains!!

THIS CATALOG protects you in all your purchases of building material, including lumber, millwork, plumbing, heating, hardware, paint, machinery, plant equipment and general supplies. It brings you a wide selection of our best bargains which are now offered at smashing low prices.

¶ Our company started its great operations in 1893, and in the years that followed to the present day, we have established an enviable, unapproached record of service to the public. From the start, each succeeding year brought us added strength and power to serve an ever growing host of satisfied customers, who are firmly bound to us by our honest methods, and the money we have saved for them.

¶ During the past few years, our purchases of Government Camps and Government merchandise added to our big purchases of complete plants and factories, has made it possible for us to offer even greater values now than ever before. Today we own and are conducting the sale of materials from the following great Government camps and plants:

CAMP MERRITT, Tenafly, N. J.

CAMP SHELBY, Hattiesburg, Miss.

GERSTNER FIELD, Lake Charles, La.

LOUISIANA SHIPBUILDING CO., Slidell, La.

CAMP DEWEY at Great Lakes Naval Training Station, No. Chicago, Ill.

CAMP PERRY at Great Lakes Naval Training Station, No. Chicago, Ill.

*We also operate branches and distributing plants at St. Paul, Minn.,
Joliet, Ill., and our mammoth 20-acre plant here at Chicago.*

¶ The pages which follow in this book offer a complete selection of finest brand new building material, and a brief list of bargains in building material and general supplies now selling at the Government Camps and plants recently purchased. Your savings on anything you select from this book can be conservatively estimated at from 25% to 50%.

¶ It is impossible for us to include in this book everything we have for sale. So, if you are not able to find just what you are looking for, let us know your needs. We issue many special catalogs, lists and bulletins of products, material, merchandise, supplies, and equipment of every kind, which are sent free. Get familiar with our big stocks.

*Everything in this catalog is offered subject to prompt acceptance
and prior sale free on board cars, unless otherwise stated.*



HARRIS BROTHERS COMPANY, CHICAGO

MATERIAL SECURED at

You must act quick to get your share of the many savings offered at the Government Camps. Everything at these points is offered subject to prior sale.

CAMP MERRITT

CAMP SHELBY

GERSTNER AVIATION FIELD

CAMP PERRY

CAMP DEWEY

Tenaflly, New Jersey

Hattiesburg, Mississippi

Lake Charles, La.

Great Lakes Station, No. Chicago, Ill.

Great Lakes Station, No. Chicago, Ill.

Some of the Bargains Now on Sale!!

—at CAMP SHELBY

Lumber of Every Kind

Five million feet of good sound thoroughly seasoned lumber, suitable for building operations of every kind.

No. JT-309 dimension lumber, in random lengths as it comes from the buildings.

2x4's, 8 ft. and longer.....	\$12.00
2x6's, 8 ft. and longer.....	12.00
2x8's, 8 ft. and longer.....	12.00
2x10's, 10 ft. or 12 ft. only.....	12.00
2x10's, 20 ft. long only.....	14.00

Lot No. JT-300 mixed square edge and matched sheathing, lengths 8 to 16 ft. \$10 a thousand.

Lot No. JT-302 1x8-10-12 in. all 16 ft. long, \$13.00 a thousand.

Sash

Lot No. JT-153, 8 light sash, size of each light 8 in. by 12 in. size over all 44 in. wide by 27½ in. high, each.....75c

Lot No. JT-168-A, 6 light sash, size of each light 10x15 in. over all 2 ft. 10 in. by 2 ft. 10½ in. each.....60c

Plumbing

Lot No. JT-365, Low-down type, syphon action closet outfits, with cast iron white porcelain enamel tank, and white vitreous earthenware bowl. Price each.....\$15.00

Lot No. JT-364 slop sinks, size 24x24x12 in., both white enamel and vitreous china bowl, "S" pattern trap, Price each.....\$10.00

Kewanee Tank Heaters

Lot No. JT-356, These heaters were manufactured by the Kewanee Boiler Co.

Size	Capacity	Price	Size	Capacity	Price
12-in. grate	175 gals.	\$30.00	19-in. grate	400 gals.	\$40.00
16-in. grate	300 gals.	35.00			

Hot Water Storage Tanks

Lot No. JT-355, These tanks were manufactured by the Kewanee Boiler Co., sides 3-16 in., heads ¼ in., plates riveted and caulked.

Size	Capacity	Price	Size	Capacity	Price
24x60 in.	120 gals.	\$30.00	48x60 in.	350 gals.	\$60.00
30x60 in.	180 gals.	50.00	48x72 in.	560 gals.	75.00

Wrought Iron Pipe

Lot No. JT-357, 40,000,000 ft., 6-in. wrought iron pipe. Small quantity of 8, 10 and 12 in. Write for prices.

Cast Iron Pipe

Lot No. JT-359 cast iron water mains.

3000 ft. of 12 in. Class "C"	
2500 ft. of 16 in. Class "E"	
2500 ft. of 10 in. Class "A"	

Write for prices.

Relaying Rail

Lot No. JT-385A, 2 miles, 60 lb. relaying rails.

1 mile, 77 lb. relaying rail.

3000 ft. 50 lb. relaying rail.

Price per ton (including angle bars).....\$37.50

The prices above are F. O. B. cars Hattiesburg, Miss. Send all communications and orders direct to address below, or write for complete list No. CS-185.

HARRIS BROTHERS CO.

(Camp Shelby Branch)

Box 481, Hattiesburg, Miss.

—at GERSTNER FIELD

Buildings As They Stand

Suitable for residences, garages, warehouses, factories, convention halls, county fair buildings, barns, etc. Sizes ranging from 16 ft. by 18 ft. to 66 ft. by 205 ft. Now offered at low quick sale prices.

Blue prints for re-erecting furnished without charge.

Lumber of Every Kind

Dimension sheathing, siding, ship lap, flooring and ceiling. Millions of feet in splendid condition, carefully taken down with all nails drawn—not clipped off.

Lot No. GF-111 Dimension Lumber, 8 ft. and longer; in random lengths as it comes from the buildings.

2x4's, 8 ft. and longer.....	\$14.00	2x10's, 8 ft. and longer....	\$13.50
2x6's, 8 ft. and longer.....	13.00	2x12's, 8 ft. and longer....	13.50
2x8's, 8 ft. and longer.....	13.00		

Lot No. GF-108 mixed mare-edge or matched sheathing, lengths 6 to 20 ft. as it comes from the building. Either kind per 1000 ft. board measure.....\$13.00

Lot No. GF-109 Drop Siding, good grade No. 1 YP novelty siding, lengths 3 ft. to 16 ft. as it comes from the building. Has priming coat of light green paint; per 1000 ft.....\$14.00

Windows and Doors

Lot No. GF-213 regular 12 light check rail windows, sizes of each light 10"x12". Price per window (2 sash upper and lower, overall size 2'10"x4'6").....\$2.00

Lot No. GF-214, Same as above, except slightly larger, size of each light being 10"x54", and overall size being 2'10"x5'6". Price..\$2.50

Lot No. GF-200, Regular 5 cross panel doors, stained dark oak

Size	Thickness	Price
2'-4"x6'-8"	1½"	\$2.00
2'-8"x6'-8"	1½"	2.25

Glazed Doors

2'-8"x6'-8"	1½"	\$3.00
3'x7'	1½"	4.00

Frames available for either windows or doors at.....\$1.00 each

Roofing and Plasterboard

Lot No. GF-236, Best grade of heavy red slate coated roll roofing, carefully removed, mixed lengths, average width 24 in. Price per 108 sq. ft.....\$1.50

Standard plaster board, such as "Best Wall" salvaged in sizes 4 ft. and wider, 3 ft. and longer, about ¾ in. thick, Per square foot 1½ ft. per square crated.....\$2.50

Plumbing and Heating

Lot No. GF-400, Low-down type syphon action closet outfits, white vitreous china tanks. Price of outfit.....\$20.00

American Radiator Co. and Ahrens & Ott steam heating boiler from \$150 up. Steam radiation, standard designs, two and three column, per sq. ft.....25

The prices above are F. O. B. cars Lake Charles, La. Send all communications and orders direct to address below, or write for complete list No. GF-185.

HARRIS BROTHERS CO.

(Gerstner Field Branch)

Box 152, Lake Charles, La.

HARRIS BROTHERS COMPANY, CHICAGO

GOVERNMENT CAMPS!

Some of the Bargains Now on Sale!!

—at CAMP MERRITT

Good Lumber

Deep cut prices prevail for quick sale of lumber at this point. Send us a list of your requirements. Thoroughly seasoned material, carefully removed, with all nails drawn. Following prices are for 1,000 feet b/m.

Dimension material including 2x4's, 2x6's, 2x8's, 2x10's, 4x4's, and 6x6's; also siding now offered at.....\$29.50

Flooring

3,000,000 ft. 1x4 Yellow Pine Flooring in splendid condition. Suitable for sheathing boards, sale price.....\$20.00

Sheathing Boards

Good sheathing boards, lengths from 4 ft. to 8 ft.\$20.00
Select sheathing boards, lengths from 8 ft. to 16 ft.\$25.00

Pipeless Furnaces

Richardson & Boynton Co. & Detroit Stove Works heaters, used for heating large rooms, and readily converted into pipeless furnace, or regular pipe furnace. Outside measurements 46 in. to 48 in. diam.; heights, 65 in. to 68 in.; fire pots, 24 in., 26 in., and 28 in. diam., each.....\$40.00

Paneled Doors

Large quantity five cross panel doors, in good condition for arranging purpose, each.....\$1.50

Wall Board

Large quantity. All sizes. Special low quick sale price of 1,000 sq. ft.....\$1.50

Roofing

5,000 sq. ft. 2 and 3 ply stock, good condition for further use. 30 in. wide, rolls contain 108 sq. ft. Sold in lots of 10 rolls or more, per roll.....50c

Six Light Sash

30,000 six light sash, 2'10"x2'10 1/2", 1 1/2" thick, lots of 12 or more.....\$1.25

Closet Outfits

Low type with white porcelain tank (no cover) white china wash down bowl, outfit complete.....\$15.00

Kitchen Sinks

One piece white porcelain enamel, with right or left drain board. Complete with two nickel plated faucets.
44 in. long.....\$33.75
48 in. long.....35.10
54 in. long.....37.50

Enamel Sinks

Cast in one piece, complete with two nickel plated faucets.
20x20 in.....\$14.50
20x36 in.....20.50

Enamel Urinals

White vitreous china urinals, complete with self closing cock, each.....\$10.00

Radiators

75,000 ft. Standard 2 and 3 column radiation, 33 in. high. Price per sq. ft.....25c

Steel Sheets

Large quantity, 22 in. gauge, new open hearth sheets, 2 1/2 in. corrugated, size 27x84 in., and 27 1/2 x120 in. Write for prices.

Heating Boilers

45 boilers for hot water or steam heating, round, sectional type. Size from 850 radial ft. to 1300 radial ft. priced from \$117.00 to \$172.50.
Steam Boilers, 650 radial ft. to 800 radial ft., priced \$160.00 to \$185.00.

The prices above are all F. O. B. cars Tenafly, New Jersey. Send all communications and orders direct to address below, or write for complete list No. CM-185.

HARRIS BROTHERS CO.
(Camp Merritt Branch) TENAFLY, NEW JERSEY

—at CAMPS DEWEY AND PERRY GREAT LAKES NAVAL TRAINING STATION!

Complete Buildings

Here at Great Lakes Naval Training Station we are offering buildings of every description at unusually low prices. Quick action is necessary, for we have only a limited time to clear the grounds.

Bungalows, cottages, houses, cabins, garages, warehouses, and large buildings suitable for industrial plants, exposition and fair buildings, sold standing or dismantled, from the Camps. Get full particulars now.

Good Seasoned Lumber

1x4 Yellow Pine flooring.....\$23.00
4 in. beaded ceiling and partition.....\$18.00
Lumber of all kinds offered for quick sale as low as.....\$14.00

Above prices are for 1,000 ft. b/m.

Lavatories

1200 white porcelain enamel lavatories in excellent condition, with 2 faucets, offered for quick sale at, each.....\$7.00

Closet Outfits

Low down type closet outfits. Complete with white porcelain enamel tank and white vitreous earthenware bowl, good as new, complete outfit.....\$20.00

Kitchen Sinks

Flat Rim kitchen sinks with white porcelain enamel lining, size 20x36 in., each.....\$4.50

Screen Doors

Hundreds of screen doors, size 3x7 ft., offered for quick sale at each.....\$1.00

Window Screens

Large quantity of window screens, size 43x51 in., each.....40c

Doors

940 Doors suitable for general purposes, 5 cross panel style, with more or less hardware, 2 ft. 8 in. by 7 ft. and 3 ft. by 7 ft.

Windows

6 light windows, size of glass 14"x22", each.....\$2.50
Frames for above windows.....\$1.50

Roofing

1,000 rolls of roofing, carefully removed, 3 ply green slate coated stock, put up in rolls of 108 sq. ft. Specially priced at.....\$1.50

Ventilators

Roof ventilators of various types, including stationary and ball bearing, revolving or swivel styles, various sizes offered as low as, each.....\$1.50

Sky Lights

Galvanized frame wire ribbed glass sky lights in first-class condition, sizes from 8x14 ft. to 12x16 ft. Price per sq. ft.....50c

Heating Boilers

20 Kewanee fire box heating boilers, size 54 in. by 14 ft., 54 in. by 16 ft. 6 in., 60 in. by 18 ft., 66 in. by 21 ft.; complete with all castings and trimmings, including shaker grates, some of them never used, the kind that are specified for apartment buildings, large homes and industrial plants.

Radiation

Large quantity of wall radiators, made by American Radiator Co.; Rococo pattern, in five sizes, horizontal and vertical styles suitable for any wall arrangement, offered for quick sale at per sq. ft.....25c

Pipe and Fittings

Mail list of pipe valves and fittings you need. We have pipe and accessories of every kind here at this plant, selling at big price reductions.

Miscellaneous equipment, tables, benches, electrical supplies, dish washers, ranges, and kitchen equipment.

The prices above are F. O. B. cars North Chicago, Ills. Send all communications and orders direct to address below, or write for complete list No. GL-185.

HARRIS BROTHERS CO.
(Great Lakes Branch) Box 516, NO. CHICAGO, ILL.

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FREIGHT SHIPMENTS

The Freight Tables Below The tables below show the freight rates per 100 lbs. on shipments from Chicago to properly distributed cities in each state. The railroad companies use these cities as a basis for figuring freight rates to the town in the immediate vicinity of the cities given. By referring to the classification and the freight tables below, you can come within a few cents of the correct freight rate to your town from Chicago on less carloads. Carload rates furnished on application.

How to Figure Freight Charge

First look through the classification table directly below and find what class covers the merchandise you wish shipped; then refer to the table of freight rates to the nearest town to your shipping point. Follow the line of that town to the column showing the classification of the goods you wish shipped, and this will give you the freight rate per 100 lbs. within a few cents of the actual charge.

CLASSIFICATION OF MATERIAL AND MERCHANDISE WHEN SHIPPED BY FREIGHT

The railroad companies discriminate in the goods to be shipped and classify them as shown in the tables below in four different classifications. This is how they base the freight rates on all merchandise to every section of the country.

In order that you can figure the correct freight rate to your station, we have classified merchandise which will cover shipments of almost any nature. If you are unable to find the particular article you wish shipped, find that which nearest resembles it.

Class	Class	Class	Class	Class	Class
Adding Machines. *1 1/2 T	Beltting. 2	Columns, Iron or Steel. 4	Fittings, Lavatory. 4	Lath, Wooden. 4	Roofing, Iron. 4
Angle Bars and Plates. 4	Blowers, Air. 1	Concrete Block Machines 1	Fittings, Pipe. 1	Lathing, Metal. 4	Range Boilers. 3
Anvils. 4	Boilers, Heating, Iron or Steel. 2	Conductor Pipe. 1	Flooring, Tile. 1	Lavatories, Iron or Steel 2	Ranges and Stoves, Coal. 3
Comb. 4	Buckets, Building, Concrete. 2	Console Mirrors. 1	Flues, Boiler. 1	Lavatories, Iron Basins 2	Refrigerators. 2
Asbestos Felt or Paper. 3	Cabinets, Dressing and. *D1	Corn Shellers, hand. 1	Forges, Portable. 2	1 or Bowls. 1	Roofing, Prepared. 4
Asbestos Roofing. 4	Cabinets, Kitchen. *D1	Corn Shells, Power. 1	Furnace, Castings. 1	2 Rope, Wire. 1	2 Roofing, Wire. 4
Asphalt Shingles. 4	Cabinets, Medicine, Toilet. 1	Couches, Wooden. 1	Furnace, Heating. 1	3 Rugs. 1	1 Safes, Kitchen. 1 1/2
Asphalt Paint in Wood. 3	Cabinets, Stove or Range. 1	Couches, Bamboo, Cane, Fibre & Grass Rattan. 1	Gates, Wood, Iron or Wire. 2	2 Mantels, Wooden. 2	2 Safes, Iron. 2
Barb Wire. 4	Cabinets, Wall. 1 1/4 T	Doors, Wood, Glazed. 2	Gates, Wood and Iron. 2	1 Nails, Iron or steel. 1	4 Sewing Machines. 1
Barn Door Hanger Rails. 1 1/2 T	Camp Chairs. 1	Doors, Vault. 2	1 Glass Comm. Window. 2	1 Paper, Building. 2	4 Shingles, Wooden. 2
Barrows. Wheel. 1 1/2 T	Carpets. 4	Drain Boards and Sinks. 1	2 Boxed. 2	3 Paper, Roofing. 3	3 Sash, Unglazed. 3
Basins, Lavatory Iron. 2	Casings. Boiler. 4	1 Backs, Combinations. 1	1 Glass, Plate, not bent, 120 in. or under. 2	4 Piling, Wooden. 4	4 Stoves (See Ranges). 3
Bath Tubs, Iron & Steel. 2	Chairs, Revolving. *D1	1 Drain Boards, Iron or Steel. 1	Exceeding 120 in. but not over 15 ft. 2	3 Pipe Fittings. 3	4 Wallboard. 3
Bath Tub Fittings. 2	Chairs & Ladders, Combined. 1 1/2 T	1 Engines, Steam. 1	Hardware. 2	1 Pipe, Iron. 1	4 Wire, Barbed. 3
Bathroom Cabinets. 2	Channels, Iron or Steel. 4	Feed Boxes, iron or steel 1 1/2	Hay Presses. 3	3 Minot. 3	3 Wire Gates. 3
Beams, Columns, Guides, Trusses. 4	Columns, Wooden. 3	1 Fence Post, iron or steel 4	Incubators. 1	4 Plasterboard. 4	4 Water Closet Bowls, Iron. 3
Beams, Iron or Steel. 4		1 Fittings, Bath Tub. 2	1 Iron Angles, Band, Structural. 4	3 Wire Fencing. 3	1 1/2 T Means 1 1/2 times
Beds, Folding Iron. 2			1 Jack Screws. 2		1 1/2 T Means Double 1st class.
Beds, Three Places, Bedstead Ends and Rails. 2					1 ***3T1 Means 3 times 1st class.
Bedstead Rails and Wire Springs. 2					
Bedstead Slat, Wooden. 3					
Bells. 4					

THE FREIGHT RATES BELOW ARE FOR 100 LBS. TO TOWNS COVERING EACH STATE

	1st Class Per 100 lbs.	2nd Class Per 100 lbs.	3rd Class Per 100 lbs.	4th Class Per 100 lbs.		1st Class Per 100 lbs.	2nd Class Per 100 lbs.	3rd Class Per 100 lbs.	4th Class Per 100 lbs.		1st Class Per 100 lbs.	2nd Class Per 100 lbs.	3rd Class Per 100 lbs.	4th Class Per 100 lbs.
ALABAMA—					KENTUCKY—					NORTH DAKOTA				
Birmingham. \$2.12	\$0.79	\$1.49	\$1.20		Frankfort. \$1.24	\$1.06	\$0.87	\$0.68		Bismarck. \$2.71	\$2.29	\$1.81	\$1.31	
Brewton. 2.54	2.19	1.87	1.50		Hopkinsville. 1.34	1.09	.92	.77		Fargo. 1.98	1.66	1.31	.91	
Mobile. 2.27	1.92	1.59	1.37		Louisville. 1.93	1.79	.63	.46		Grand Forks. 2.10	1.76	1.31	1.00	
Montgomery. 2.43	2.13	1.82	1.42		Morehead. 1.70	1.42	1.11	.81		Williston. 3.37	2.81	2.30	1.09	
ARIZONA—					LOUISIANA—					OHIO—				
Phoenix. 4.84	4.19	3.49	2.92		Lake Charles. 2.64	2.23	1.81	1.56		Cincinnati. .90	.76	.60	.45	
Tucson. 4.84	4.19	3.49	2.92		New Orleans. 2.28	1.93	1.59	1.37		Columbus. .93	.79	.63	.47	
ARKANSAS—					Shreveport. 2.58	2.18	1.79	1.52		Toledo. .84	.72	.57	.43	
Arkansas City. 2.96	1.91	1.56	1.33		MAINE—					OKLAHOMA—				
Fort Smith. 2.96	1.91	1.56	1.33		Bangor. 1.65	1.45	1.10	.78		Oklahoma City. 2.53	2.18	1.81	1.47	
Hot Springs. 2.22	1.87	1.51	1.29		MARYLAND—					OREGON—				
Little Rock. 2.12	1.78	1.45	1.24		Baltimore. 1.55	1.36	1.02	.71		Portland. 5.67	4.92	4.09	3.46	
Tuxedo. 2.42	2.03	1.65	1.42		MASSACHUSETTS—					PENNSYLVANIA—				
CALIFORNIA—					Boston. 1.65	1.45	1.10	.78		Harrisburg. 1.55	1.36	1.02	.71	
Bakersfield. 5.67	4.92	4.09	3.46		MICHIGAN—					Philadelphia. 1.56	1.37	1.03	.72	
Los Angeles. 5.67	4.92	4.09	3.46		Bessemer. 1.10	.93	.75	.48		Pittsburgh. 1.09	.93	.73	.55	
San Francisco. 5.67	4.92	4.09	3.46		Detroit. .88	.75	.59	.44		RHODE ISLAND—				
COLORADO—					Grand Rapids. .83	.70	.56	.42		Providence. 1.65	1.45	1.10	.78	
Denver. 3.04	2.45	1.88	1.44		Traverse City. 1.09	.91	.73	.54		SOUTH CAROLINA—				
Durango. 5.23	4.41	3.50	2.62		MINNESOTA—					Charleston. 2.39	2.02	1.79	1.55	
Grand Junction. 4.42	3.72	3.09	2.49		Aitkin. 1.57	1.33	1.06	.71		Columbia. 2.55	2.34	2.00	1.58	
Julesburg. 2.84	2.37	1.81	1.44		Crookston. 1.90	1.66	1.33	.94		Sumter. 2.58	2.34	2.00	1.58	
Leadville. 4.42	3.72	3.06	2.34		Duluth. 1.10	.93	.75	.48		SOUTH DAKOTA—				
CONNECTICUT—					Grand Rapids. 1.67	1.39	1.11	.75		Aberdeen. 1.98	1.61	1.14	.85	
Hartford. 1.65	1.45	1.10	.78		Minneapolis. 1.02	.85	.68	.43		Bellefourche. 3.27	2.74	2.28	1.86	
DELAWARE—					Winona. .85	.71	.56	.40		Sioux Falls. 1.41	1.14	.80	.57	
Dover. 1.68	1.40	1.06	.75		MISSISSIPPI—					Watertown. 1.62	1.39	1.08	.77	
DISTRICT OF COLUMBIA—					Hatfield. 2.16	1.82	1.56	1.30		TENNESSEE—				
Washington. 1.55	1.36	1.02	.71		Jackson. 2.18	1.85	1.63	1.31		Jackson. 1.76	1.46	1.19	.97	
FLORIDA—					Natchez. 1.84	1.50	1.26	.97		Knoxville. 2.09	1.78	1.50	1.19	
Jacksonville. 2.39	2.02	1.77	1.55		MISSOURI—					Memphis. 1.67	1.42	1.17	1.00	
Miami. 3.90	3.38	3.01	2.64		Kansas City. 1.35	1.10	.77	.54		Nashville. 1.64	1.36	1.10	.89	
Pensacola. 2.27	1.93	1.59	1.37		St. Louis. 1.38	1.22	.85	.63		TEXAS—				
Tallahassee. 3.20	2.76	2.37	1.91		Springfield. 1.47	1.27	.88	.66		El Paso. 3.72	3.14	2.57	2.20	
Tampa. 3.17	2.69	2.30	2.05		Billings. 4.17	3.49	2.82	2.27		Fort Worth. 2.32	2.39	1.96	1.79	
GEORGIA—					Glasgow. 3.76	3.20	2.59	1.97		Houston. 2.32	2.39	1.96	1.79	
Atlanta. 2.57	2.21	1.87	1.52		Havre. 4.16	3.57	2.90	2.27		UTAH—				
Macon. 2.57	2.21	1.87	1.52		Helena. 4.42	3.77	3.09	2.40		Marysville. 5.20	4.47	3.81	3.18	
Savannah. 2.39	1.97	1.77	1.55		Kalispell. 4.59	3.92	3.22	2.62		Salt Lake City. 4.42	3.72	3.09	2.49	
Waycross. 3.01	2.58	2.27	1.89		Miles City. 3.76	3.20	2.59	1.97		VERMONT—				
IDaho—					NEBRASKA—					Montpelier. 1.65	1.45	1.10	.78	
Boise. 4.69	4.02	3.34	2.76		Lincoln. 1.44	1.19	.83	.62		VIRGINIA—				
Pocatello. 4.42	3.72	3.09	2.49		North Platte. 2.64	2.20	1.67	1.33		Martinsburg. 1.79	1.56	1.48	.85	
ILLINOIS—					Omaha. 1.35	1.10	.77	.54		Richmond. 1.55	1.36	1.02	.71	
Chicago. .99	.84	.66	.50		NEVADA—					Winchester. 1.55	1.36	1.02	.71	
Joliet. .46	.39	.31	.23		Austin. 5.96	5.28	4.57	3.89		WASHINGTON—				
Rock Island. .74	.63	.50	.37		Carson City. 6.23	4.58	3.88	3.32		Seattle. 5.67	4.92	4.09	3.46	
Springfield. .79	.67	.53	.40		NEW HAMPSHIRE—					Spokane. 4.84	4.19	3.49	2.92	
INDIANA—					Concord. 1.65	1.45	1.10	.78		WEST VIRGINIA—				
Evansville. .90	.76	.60	.45		NEW JERSEY—					Charleston. 1.09	.93	.73	.55	
Fort Wayne. .71	.60	.47	.36		Atlantic City. 1.66	1.47	1.13	.82		Elkins. 1.26	1.11	.84	.62	
Indianapolis. .79	.67	.53	.40		Trenton. 1.58	1.39	1.05	.74		WISCONSIN—				
Richmond. .84	.71	.56	.42		NEW MEXICO—					Ashland. 1.10	.93	.75	.48	
South Bend. .59	.50	.39	.30		Gallup. 4.84	4.19	3.49	2.92		La Crosse. .85	.71	.56	.40	
IOWA—					Sante Fe. 3.67	3.14	2.53	2.12		Madison. .67	.57	.45	.34	
Des Moines. 1.02	.81	.61	.46		Silver City. 4.34	3.69	3.04	2.60		Marquette. .73	.61	.50	.39	
Fort Dodge. 1.10	.88	.66	.50		NEW YORK—					Milwaukee. .58	.50	.39	.30	
Sioux City. 1.35	1.10	.77	.54		Albany. 1.51	1.33	1.01	.71		WYOMING—				
KANSAS—					Buffalo. 1.09	.93	.73	.55		Cheyenne. 3.04	2.45	1.86	1.44	
Dodge City. 2.74	2.35	1.83	1.41		New York. 1.58	1.39	1.05	.74		Green River. 4.26	3.59	2.97	2.39	
Great Bend. 2.45	2.06	1.61	1.31		Syracuse. 1.26	1.11	.84	.59		Laramie. 4.67	3.89	3.09	2.47	
Topeka. 1.69	1.39	1.00	.73		NORTH CAROLINA—					Wilmington. 2.18	1.89	1.49	1.10	
Wichita. 2.20	1.88	1.46	1.11		Raleigh. 2.18	1.89	1.49	1.10						
					Wilmington. 2.18	1.81	1.44	1.10						

EXPRESS SHIPMENTS

The Express Rates Below In the tables below you will find the latest express rates per 100 lbs. on shipments from Chicago to well distributed cities in each state. You can use these cities to figure charges to your town. Look over the table and find the city nearest to you. If you wish to know the exact express charges on any article in this book to your station, write us, or ask your express agent.

How to Figure Express Charges

Refer to the weight of the articles to be shipped given in the description in our catalog; then find the express rate per 100 lbs. to the nearest point to your town given in the express rates below; then note the rate per 100 lbs. in the scale of express charges, and follow the line of the weight of your goods to the column headed by the rate per 100 lbs. to your station. This will give you the correct express charges.

The Express Rates Below Are for 100 Pounds to Towns Covering Each State

From Chicago to	P. Post Zone	Per 100 Pounds	From Chicago to	P. Post Zone	Per 100 Pounds	From Chicago to	P. Post Zone	Per 100 Pounds	From Chicago to	P. Post Zone	Per 100 Pounds	From Chicago to	P. Post Zone	Per 100 Pounds
ALABAMA—			GEORGIA—Cont.			MASSACHUSETTS—			NEW MEXICO—			S. DAKOTA—Cont.		
Birmingham	4	3.53	Savannah	5	4.84	Boston	5	3.67	Gallup	6	8.87	Bellevue	5	5.47
Brewton	5	4.16	Waycross	5	4.57	MICHIGAN—			Santa Fe	6	6.79	Sioux Falls	4	3.80
Mobile	5	4.30	IDAHO—			Bessemer	4	3.11	Silver City	6	9.21	Watertown	4	4.02
Montgomery	5	3.81	Boise	7	10.87	Detroit	3	1.73	NEW YORK—			TENNESSEE—		
ARIZONA—			Pocatello	6	9.70	Grand Rapids	2	1.39	Albany	5	3.39	Jackson	4	2.91
Phoenix	7	11.29	ILLINOIS—			Traverse City	3	2.22	Buffalo	4	2.70	Knoxville	4	3.53
Tucson	6	10.12	Cairo	4	2.28	MINNESOTA—			New York	5	3.53	Memphis	4	3.11
ARKANSAS—			Joliet	4	1.83	Atkin	4	3.88	Syracuse	4	2.97	Nashville	4	2.63
Arkansas City	4	3.67	Rock Island	2	1.59	Crookston	4	4.44	N. CAROLINA—			TEXAS—		
Fort Smith	4	4.22	Springfield	3	1.80	Duluth	4	3.53	Raleigh	5	4.30	El Paso	6	8.45
Hot Springs	4	4.22	INDIANA—			Grand Rapids	4	4.02	Wilmington	5	4.64	Fort Worth	5	5.54
Little Rock	4	3.88	Evansville	3	1.73	Minneapolis	2	2.97	NORTH DAKOTA—			Houston	5	5.88
Texarkana	5	4.57	Fort Wayne	3	1.39	Winona	3	2.56	Bismarck	5	5.27	UTAH—		
CALIFORNIA—			Indianapolis	3	1.39	MISSISSIPPI—			Fargo	4	4.22	Marysville	6	10.32
Bakersfield	7	12.54	Richmond	3	1.73	Hattiesburg	5	4.02	Grand Forks	5	4.71	Salt Lake City	6	9.35
Los Angeles	7	12.54	South Bend	2	1.03	Jackson	5	3.88	Minot	5	5.47	VERMONT—		
San Francisco	8	13.09	IOWA—			Natchez	5	4.22	Williston	5	5.88	Montpelier	5	3.87
COLORADO—			Des Moines	3	2.70	MISSOURI—			OHIO—			VIRGINIA—		
Denver	5	6.02	Des Moines	4	2.91	Kansas City	4	3.11	Cincinnati	3	1.94	Marion	4	3.60
Durango	6	8.38	Des Moines	4	3.00	St. Louis	3	2.14	Columbus	3	2.28	Richmond	4	3.81
Grand Junction	6	11.98	KANSAS—			Springfield	4	3.33	Toledo	3	1.80	Rocky Mount	4	3.81
Julesburg	5	5.33	Dodge City	5	4.91	MONTANA—			OKLAHOMA—			WASHINGTON—		
Leadville	6	7.13	Great Bend	5	4.36	Billings	6	7.48	Oklahoma City	5	4.99	Seattle	7	12.12
CONNECTICUT—			Kansas City	5	4.36	Glasgow	6	7.69	OREGON—			Spokane	7	10.95
Hartford	5	3.74	Topeka	4	3.11	Havre	6	7.85	Portland	7	12.47	WEST VIRGINIA—		
DELAWARE—			Wichita	4	4.36	Helena	6	9.07	PENNSYLVANIA—			Charleston	4	2.77
Dover	5	3.39	KENTUCKY—			Kanopolis	9	9.43	Harrisburg	4	3.19	Elkins	4	3.25
DIST. OF COLUM.			Frankfort	3	2.14	NEBRASKA—			Philadelphia	5	3.39	Wheeling	4	2.42
Washington	4	3.33	Hopkinsville	4	2.42	Lincoln	4	3.60	RHODE ISLAND—			WISCONSIN—		
FLORIDA—			Louisville	3	1.94	North Platte	5	4.91	Providence	4	2.56	Ashland	4	3.33
Jacksonville	5	4.99	LOUISIANA—			Omaha	4	3.33	S. CAROLINA—			La Crosse	3	2.08
Miami	6	6.51	Lake Charles	5	4.99	NEW HAMPSHIRE—			Charleston	5	4.91	Madison	2	1.80
Pensacola	5	4.50	New Orleans	5	4.50	Concord	7	12.20	Greenville	4	4.30	Milwaukee	2	1.45
Tallahassee	5	4.84	Shreveport	5	4.71	NEW JERSEY—			SOUTH DAKOTA—			WYOMING—		
Tampa	5	5.75	MAINE—			Atlantic City	5	3.53	Aberdeen	4	4.57	Cheyenne	5	5.96
GEORGIA—			MARYLAND—			Trenton	5	3.53	SOUTH DAKOTA—			Green River	6	8.24
Atlanta	4	3.81	Baltimore	4	3.11							Lander	6	7.62
Macon	5	4.16									Sheridan	5	6.72	

The Scale of Express Charges Below Is Based on the 100 Pound Rate

Rate per 100 lbs.	\$1.03	\$1.39	\$1.45	\$1.59	\$1.73	\$1.80	\$1.94	\$2.08	\$2.14	\$2.22	\$2.28	\$2.42	\$2.56	\$2.63	\$2.70
CHARGES ON															
Package of 1 lb.	.37	.37	.37	.37	.37	.37	.37	.37	.37	.37	.37	.37	.37	.38	.38
Package of 2 lbs.	.37	.37	.37	.38	.38	.38	.38	.38	.38	.39	.39	.39	.39	.39	.39
Package of 5 lbs.	.38	.40	.40	.40	.42	.42	.43	.43	.43	.44	.44	.44	.44	.45	.45
Package of 10 lbs.	.40	.44	.45	.47	.48	.48	.50	.52	.53	.53	.54	.55	.57	.57	.58
Package of 15 lbs.	.44	.50	.53	.53	.55	.57	.58	.60	.62	.64	.66	.68	.69	.69	.69
Package of 20 lbs.	.47	.55	.58	.59	.62	.64	.67	.69	.71	.72	.73	.76	.79	.81	.82
Package of 25 lbs.	.50	.60	.64	.66	.69	.71	.74	.78	.79	.82	.83	.86	.89	.92	.93
Package of 30 lbs.	.53	.66	.69	.72	.76	.78	.82	.86	.88	.89	.93	.97	1.01	1.02	1.06
Package of 35 lbs.	.57	.71	.76	.78	.83	.86	.89	.96	.98	1.00	1.02	1.07	1.12	1.15	1.16
Package of 40 lbs.	.59	.75	.82	.84	.89	.93	1.03	1.08	1.07	1.10	1.12	1.17	1.23	1.26	1.29
Package of 45 lbs.	.62	.82	.87	.89	.97	1.00	1.07	1.12	1.15	1.20	1.22	1.27	1.35	1.37	1.40
Rate per 100 lbs.	\$2.77	\$2.91	\$2.97	\$3.11	\$3.19	\$3.25	\$3.33	\$3.39	\$3.53	\$3.60	\$3.67	\$3.74	\$3.81	\$3.88	\$4.02
CHARGES ON															
Package of 1 lb.	.38	.38	.38	.38	.38	.38	.38	.38	.38	.39	.39	.39	.39	.39	.39
Package of 2 lbs.	.39	.40	.40	.40	.40	.40	.42	.42	.42	.42	.42	.42	.43	.43	.43
Package of 5 lbs.	.47	.47	.48	.48	.48	.48	.52	.52	.52	.53	.53	.54	.54	.54	.55
Package of 10 lbs.	.58	.59	.60	.62	.64	.64	.66	.67	.68	.68	.69	.71	.72	.73	.74
Package of 15 lbs.	.71	.72	.73	.76	.78	.79	.81	.82	.83	.84	.86	.87	.89	.92	.93
Package of 20 lbs.	.83	.84	.87	.89	.92	.93	.95	.96	.98	1.00	1.01	1.02	1.03	1.06	1.08
Package of 25 lbs.	.96	.97	1.00	1.03	1.06	1.07	1.10	1.11	1.13	1.16	1.17	1.20	1.21	1.23	1.26
Package of 30 lbs.	1.07	1.10	1.13	1.17	1.20	1.22	1.23	1.26	1.30	1.31	1.35	1.36	1.39	1.40	1.44
Package of 35 lbs.	1.20	1.22	1.26	1.31	1.35	1.36	1.39	1.41	1.45	1.49	1.51	1.54	1.55	1.58	1.64
Package of 40 lbs.	1.31	1.35	1.40	1.45	1.49	1.51	1.54	1.56	1.63	1.65	1.68	1.70	1.74	1.76	1.81
Package of 45 lbs.	1.44	1.47	1.52	1.59	1.63	1.65	1.69	1.71	1.78	1.81	1.84	1.86	1.90	1.93	1.98
Rate per 100 lbs.	\$4.57	\$4.64	\$4.71	\$4.91	\$4.99	\$5.27	\$5.33	\$5.47	\$5.54	\$5.75	\$5.88	\$6.02	\$6.51	\$6.58	\$6.72
CHARGES ON															
Package of 1 lb.	.39	.39	.39	.39	.39	.40	.40	.40	.40	.40	.40	.42	.42	.42	.42
Package of 2 lbs.	.43	.43	.43	.44	.44	.44	.44	.44	.45	.45	.45	.47	.47	.47	.48
Package of 5 lbs.	.55	.55	.57	.57	.58	.59	.59	.60	.60	.62	.62	.66	.66	.67	.68
Package of 10 lbs.	.78	.78	.81	.81	.83	.84	.86	.86	.88	.88	.89	.92	.96	.97	.98
Package of 15 lbs.	.98	.98	1.00	1.02	1.03	1.05	1.10	1.11	1.12	1.15	1.16	1.20	1.27	1.27	1.30
Package of 20 lbs.	1.20	1.21	1.22	1.26	1.27	1.34	1.35	1.37	1.39	1.42	1.44	1.47	1.49	1.55	1.59
Package of 25 lbs.	1.40	1.41	1.44	1.49	1.51	1.58	1.59	1.63	1.65	1.69	1.71	1.75	1.78	1.89	1.94
Package of 30 lbs.	1.61	1.64	1.65	1.71	1.73	1.81	1.84	1.89	1.90	1.97	1.98	2.03	2.05	2.19	2.22
Package of 35 lbs.	1.83	1.84	1.86	1.94	1.97	2.07	2.09	2.13	2.17	2.23	2.26	2.32	2.33	2.51	2.52
Package of 40 lbs.	2.04	2.07	2.09	2.18	2.21	2.32	2.34	2.39	2.42	2.51	2.56	2.60	2.62	2.81	2.84
Package of 45 lbs.	2.24	2.27	2.32	2.39	2.44	2.56	2.60	2.65	2.68	2.77	2.84	2.87	2.90	3.11	3.15
Rate per 100 lbs.	\$8.24	\$8.38	\$8.45	\$8.87	\$9.07	\$9.21	\$9.35	\$9.42	\$9.70	\$10.12	\$10.32	\$10.87	\$10.95	\$11.29	\$11.50
CHARGES ON															
Package of 1 lb.	.43	.43	.43	.43	.43	.44	.44	.44	.45	.45	.45	.47	.47	.47	.47
Package of 2 lbs.	.50	.52	.52	.53	.53	.53	.53	.53	.54	.55	.55	.57	.57	.58	.58
Package of 5 lbs.	.73	.74	.74	.78	.78	.79	.81	.82	.83	.84	.87	.88	.89	.93	.95
Package of 10 lbs.	1.18	1.15	1.15	1.20	1.22	1.23	1.25	1.25	1.27	1.31	1.35	1.40	1.40	1.44	1.45
Package of 15 lbs.	1.52	1.55	1.56	1.63	1.65	1.68	1.69	1.70	1.75	1.81	1.84	1.93	1.94	1.98	2.03
Package of 20 lbs.	1.93	1.95	1.97	2.05	2.09	2.12	2.14	2.17	2.22	2.31	2.34	2.46	2.47	2.53	2.58
Package of 25 lbs.	2.32	2.36	2.37	2.48	2.52	2.56	2.60	2.62	2.68	2.78	2.84	2.97	3.00	3.07	3.14
Package of 30 lbs.	2.72	2.76	2.77	2.90	2.96	3.01	3.05	3.06	3.15	3.28	3.34	3.50	3.52	3.63	3.69
Package of 35 lbs.	3.10	3.16	3.17	3.33	3.39	3.45	3.49	3.52	3.62	3.77	3.84	4.03	4.06	4.17	4.26
Package of 40 lbs.	3.50	3.57	3.59	3.75	3.84	3.89	3.94	3.98	4.08	4.26	4.33	4.56	4.59	4.73	4.81
Package of 45 lbs.	3.89	3.97	3.99	4.18	4.27	4.33	4.40	4.44	4.56	4.74	4.84	5.09	5.12	5.27	5.37

It's Easy to Order from This Book

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Make use of the index. It saves you time and tells you where the item you are looking for may be found in all sections of this book.

The last page of this book is a handy order blank. Tear it out and use it now. If you need more we will send them to you.

All orders from the same home should be sent to us always under the same name, preferably the name of the head of the family.

Club together with your neighbors. Have them include their orders with yours and get the benefit of large shipments at all times.

Write us in any language. We maintain a foreign department for your convenience.

Wherever possible include cash in full with your order in conformity with our regular terms. Postoffice money orders, express money orders, bank drafts, cash by registered mail, postage stamps or your personal check are acceptable.

Always include a sufficient amount in your remittance to cover parcel post charges, for the postoffice insists that this postage be paid in advance.

Avoid C. O. D. shipments wherever possible. They are the constant cause of trouble and inconvenience to our customers and offer no possible advantages.

Many of the heavier articles in this catalog are shipped direct from our factories and warehouses in order to save freight.

Our system of handling remittances and orders which come to us from our customers is designed to prevent irregularities. Occasionally mistakes will happen and we expect you to call them to our attention.

If you ever have occasion to return anything to us, please pack or wrap it carefully and place your letter of instructions in the package.

Kindly notify us at once if you change your address. This will enable us to send your mail, orders and catalogs to the correct address.

When in Chicago remember our "latch string" is always out to you. You will find our catalog as interesting as an expedition.

Postage In stamps or a sufficient amount to cover delivery must accompany your order.

Merchandise shipped by mail takes the Parcel Post rates as outlined in this table.

Packages up to 4 ozs. are carried for 10 an ounce regardless of distance. If over 4 ozs. they are charged for by the pound.

Size Limit If the combined length and girth measure of a package does not exceed 7 ft., it can be shipped by Parcel Post.

Insurance protection on Parcel Post shipments can be had as follows:

- 3c insures a package up to \$5.00.
- 5c insures a package up to \$25.00.
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Weight Limit A package weighing up to 70 lbs. can be mailed in the first and second zones only. In other zones a package must not weigh over 50 lbs.

Charges for Packages Shipped by Parcel Post

Preceding page shows your zone from Chicago

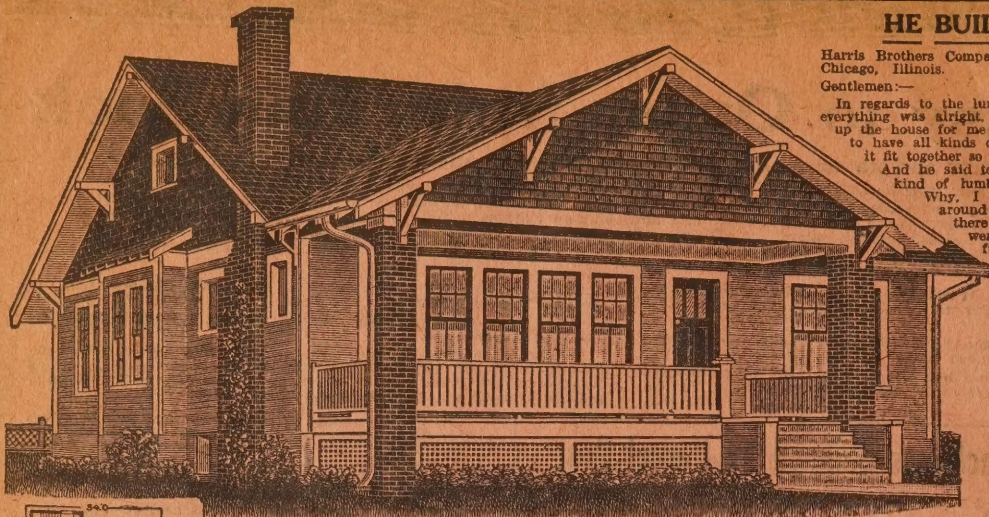
Weight, in Pounds	Local	ZONES							
		First, up to 50 miles	Second, 50 to 150 miles	Third, 150 to 300 miles	Fourth, 300 to 600 miles	Fifth, 600 to 1,000 miles	Sixth, 1,000 to 1,400 miles	Seventh, 1,400 to 1,800 miles	Eighth, over 1,800 miles
1	\$0.05	\$0.05	\$0.05	\$0.06	\$0.07	\$0.08	\$0.09	\$0.11	\$0.12
2	.06	.06	.06	.08	.11	.14	.17	.21	.24
3	.07	.07	.07	.10	.15	.20	.25	.31	.36
4	.07	.08	.08	.12	.19	.26	.33	.41	.48
5	.08	.09	.09	.14	.23	.32	.43	.53	.60
6	.08	.10	.10	.16	.27	.38	.49	.61	.72
7	.09	.11	.11	.18	.31	.44	.57	.71	.84
8	.09	.12	.12	.20	.35	.50	.65	.81	.96
9	.09	.13	.13	.22	.39	.56	.73	.91	1.08
10	.10	.14	.14	.24	.43	.62	.81	1.01	1.20
11	.10	.15	.15	.26	.47	.68	.89	1.11	1.32
12	.11	.16	.16	.28	.51	.74	.97	1.21	1.44
13	.11	.17	.17	.30	.55	.80	1.05	1.31	1.56
14	.12	.18	.18	.32	.59	.85	1.13	1.41	1.68
15	.12	.19	.19	.34	.63	.92	1.21	1.51	1.80
16	.13	.20	.20	.36	.67	.98	1.29	1.61	1.92
17	.13	.21	.21	.38	.71	1.04	1.37	1.71	2.04
18	.14	.22	.22	.40	.75	1.10	1.45	1.81	2.16
19	.14	.23	.23	.42	.78	1.16	1.53	1.91	2.28
20	.15	.24	.24	.44	.83	1.22	1.61	2.01	2.40
21	.15	.25	.25	.46	.87	1.28	1.69	2.11	2.52
22	.16	.26	.26	.48	.91	1.34	1.77	2.21	2.64
23	.16	.27	.27	.50	.95	1.40	1.85	2.31	2.76
24	.17	.28	.28	.52	.99	1.46	1.93	2.41	2.88
25	.17	.29	.29	.54	1.03	1.52	2.01	2.51	3.00
26	.18	.30	.30	.56	1.07	1.58	2.09	2.61	3.12
27	.18	.31	.31	.58	1.11	1.64	2.17	2.71	3.24
28	.19	.32	.32	.60	1.15	1.70	2.25	2.81	3.36
29	.19	.33	.33	.62	1.19	1.76	2.33	2.91	3.48
30	.20	.34	.34	.64	1.23	1.82	2.41	3.01	3.60
31	.20	.35	.35	.66	1.27	1.88	2.49	3.11	3.72
32	.21	.36	.36	.68	1.31	1.94	2.57	3.21	3.84
33	.21	.37	.37	.70	1.35	2.00	2.65	3.31	3.96
34	.22	.38	.38	.72	1.39	2.06	2.73	3.41	4.08
35	.22	.39	.39	.74	1.43	2.12	2.81	3.51	4.20
36	.23	.40	.40	.76	1.47	2.18	2.89	3.61	4.32
37	.23	.41	.41	.78	1.51	2.24	2.97	3.71	4.44
38	.24	.42	.42	.80	1.55	2.30	3.05	3.81	4.56
39	.24	.43	.43	.82	1.59	2.36	3.13	3.91	4.68
40	.25	.44	.44	.84	1.63	2.42	3.21	4.01	4.80
41	.25	.45	.45	.86	1.67	2.48	3.29	4.11	4.92
42	.26	.46	.46	.88	1.71	2.54	3.37	4.21	5.04
43	.26	.47	.47	.90	1.75	2.60	3.45	4.31	5.16
44	.27	.48	.48	.92	1.79	2.66	3.53	4.41	5.28
45	.27	.49	.49	.94	1.83	2.72	3.61	4.51	5.40
46	.28	.50	.50	.96	1.87	2.78	3.69	4.61	5.52
47	.28	.51	.51	.98	1.91	2.84	3.77	4.71	5.64
48	.29	.52	.52	1.00	1.95	2.90	3.85	4.81	5.76
49	.29	.53	.53	1.02	1.99	2.96	3.93	4.91	5.88
50	.30	.54	.54	1.04	2.03	3.02	4.01	5.01	6.00
51	.30	.55	.55	1.06					
52	.31	.56	.56	1.08					
53	.31	.57	.57	1.10					
54	.32	.58	.58	1.12					
55	.32	.59	.59	1.14					
56	.33	.60	.60	1.16					
57	.33	.61	.61	1.18					
58	.34	.62	.62	1.20					
59	.34	.63	.63	1.22					
60	.35	.64	.64	1.24					
61	.35	.65	.65	1.26					
62	.36	.66	.66	1.28					
63	.36	.67	.67	1.30					
64	.37	.68	.68	1.32					
65	.37	.69	.69	1.34					
66	.38	.70	.70	1.36					
67	.38	.71	.71	1.38					
68	.39	.72	.72	1.40					
69	.39	.73	.73	1.42					
70	.40	.74	.74	1.44					

transporting mailable parcels to every postoffice in the United States, or its possessions. This service reaches more places than any other transportation agency. Consider the comparative speed of Parcel Post shipments and without disregard for the big economy in freight shipments, the Postoffice offers a most economical delivery service. Reference to the table above shows the variation of charges according to the zone in which your postoffice is located. Parcel Post packages are handled with the same accuracy as any other mail matter. If you live in the city where your mail is delivered to your door, your Parcel Post shipments will come to your door. The rural mail carrier will deliver them to your mail box. If there is no mail carrier in your town, they are delivered to your nearest postoffice.

The Extent and Advantages of Parcel Post

What It Means to Mail Order Buyers Today

Parcel Post service offers a convenient, quick and efficient means of transporting mailable parcels to every postoffice in the United States, or its possessions. This service reaches more places than any other transportation agency. Consider the comparative speed of Parcel Post shipments and without disregard for the big economy in freight shipments, the Postoffice offers a most economical delivery service. Reference to the table above shows the variation of charges according to the zone in which your postoffice is located. Parcel Post packages are handled with the same accuracy as any other mail matter. If you live in the city where your mail is delivered to your door, your Parcel Post shipments will come to your door. The rural mail carrier will deliver them to your mail box. If there is no mail carrier in your town, they are delivered to your nearest postoffice.



HE BUILT THIS HOUSE

Harris Brothers Company,
Chicago, Illinois.

Gentlemen:-

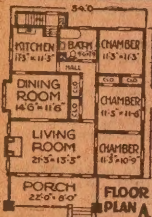
In regards to the lumber that I received from you, why, everything was alright. The Carpenter-Contractor that put up the house for me said "I thought that we were going to have all kinds of trouble to put up this house, but it fit together so good and we had no trouble at all." And he said to me you could not have bought this kind of lumber at.....

Why, I never saw so many people coming around to see a house when it is built as there was come to see this house. There were so many women come to see it from all over the city, and every person was surprised to see how nice everything fit together and that the finishing lumber was so good. Some people would say-"Why, I don't see how they can cut out this lumber and then put up the house and everything will fit together so good."

If, at any time, anyone writes to you about the Ready-Cut house from around here, why tell them to come and see my house and I will talk to them about them. There was two men come around to see if I would sell the house, for they said that they would like to buy it.

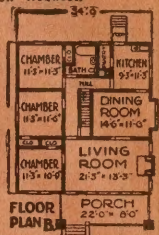
(Signed) John F. Miller.
Address on Request.

The Harris Home above illustrated is our No. Z-1020A. Has been built many times with great satisfaction. Two floor plans to select from. Six rooms, bath, attic, full basement. More details in free Plan Book.



REDUCED PRICES!

on Guaranteed Harris Homes



Now is the Time To Buy

Buy now at reduced prices. Every possible price reduction has been made. Quality of material, excellence of construction considered, we do not believe further reductions will be possible. By getting an early start, you get the pick of labor. No waiting, no delay, due to material shortages that we believe will be experienced when the rush comes in, and naturally everyone can then also expect higher prices.

Even though you are not ready to proceed with the actual building of your new home immediately, right now is the time to start planning. The most valuable building information is at your command without the cost of a single cent. Start now, fortify yourself, and when the opportunity comes to start building that longed-for home, you will be ready. We stand ready to co-operate with you, with no other end in view except to supply the Harris Home of your choice at the greatest possible saving. These Homes are our standing advertisements, they must be right, and our liberal guarantee should convince you that here and now is where you can start right and be safe.

FREE PLAN BOOK. A handsome Plan Book of more than 100 styles and plans is ready for immediate mailing. It is free. Filled to the cover with floor plans, elevations, details and descriptions. Ask for Plan Book No. 77-Y.

Our Guarantee

Each and every Harris Home, Ready-Cut or Not Ready-Cut, that leaves this establishment, is accompanied by a **BINDING GUARANTEE**, that every single item will be correctly furnished, of the best grade and manufacture. That the material will build the house correctly, generally better than average old time construction. Clear lumber for all inside and outside finish and siding. Double floors, double walls, three coat paint work, handsome doors, millwork and hardware in harmonious designs, guaranteed roof and roofing. No skimping anywhere.

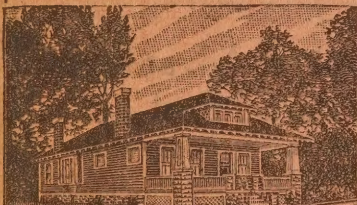
The majority of our customers are those who carefully investigate home building propositions of all kinds, and find that we offer the most practical and economical houses. The tremendous growth of our Harris Home Department proves that thousands have purchased at a saving and with perfect safety, so can you—start now.

FREE PLAN OFFER!

So confident are we of the excellence of our plans and construction, that we offer you the blue print plans of any houses on this page at the ridiculously low price of \$2.00, provided you mention

FREE PLAN OFFER NO. 23-Z-183

If the plans are not satisfactory and are returned to us within ten days we will refund you your \$2.00. If you order your house the \$2.00 will be credited on your order, so that you get them free either way. This is only one of our many policies to safeguard our Harris Home Builders at every angle.



Harris Home No. Z-1001

One of the many attractive bungalows in our Free Book of Plans. There is a wealth of character to the design and arrangement. The size, 25 ft. x 36 ft., has permitted our architects to plan five good-sized rooms with a spacious attic. Write today for Greatly Reduced Prices and Plans.

..... New Jersey.

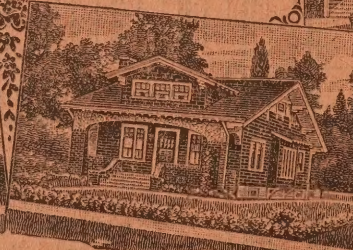
"We received everything belonging to our house. It couldn't have been better. Father and brother built house in one month and three weeks. We will recommend your houses in every way."

(Signed) Richard Goeller.



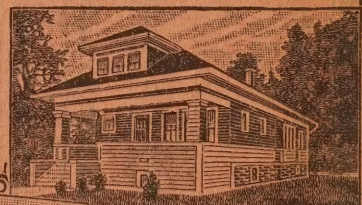
Harris Home No. Z-1516

An artistic home. Every dollar you invest in this building will be returned to you tenfold in comfort, beauty and convenience. Size 32 ft. x 25 ft. 4 in. Seven rooms and bath. Write today for Greatly Reduced Prices and Plans.



Harris Home No. Z-1503

An impressive California type bungalow. Numerous features of good taste and comfort everywhere. Size 26 ft. x 40 ft. Five rooms, bath and space for three big bedrooms upstairs. Write today for Greatly Reduced Prices and Plans.



Harris Home No. Z-1511

A charming type of bungalow with all the conveniences you could wish for. Note the broad, spacious porch covered by the main house roof. The plans in our Free Book show six good-sized rooms, bath and store room. Size 24 ft. x 36 ft. Write today for Greatly Reduced Prices and Plans.

"I can't say too much for the Harris Home which I purchased. Everyone who has seen it admired it very much. You have made good every promise. I must say it was a great pleasure for me to do business with a firm like yours."

(Signed) J. Harold Zeigler.

Write Today for Greatly Reduced Prices and Plans

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

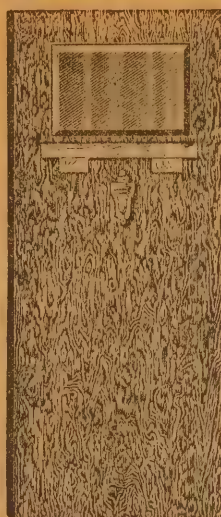
Flat Surface Fir Bungalow Doors



Vernon



Tacoma



Roslyn

Made to Show the
Beautiful Grain

Attractiveness, Durability and Simplicity are the three resplendent features of our "VERNON," "TACOMA" and "ROSLYN" Front Doors. Each and every door represents the latest achievement in the manufacture of Fir Doors.

We are the first to offer you High-Grade, 5-Ply, Cross-Banded, Flat Surface Sanitary Doors, made entirely of Clear Fir, a wood that is susceptible to any imitative treatment. They are of superior construction thruout, and are guaranteed not to warp or twist, providing ordinary care is used by you immediately upon receipt. The veneers are selected for Grain, great care being taken to match them perfectly in order to produce a beautiful door in every sense of the word. Fir is suitable for white paint finish, either for inside or outside use.

These doors harmonize with any style of architecture and are highly desirable for front doors of bungalows, residences, and where something new, something out of the ordinary is wanted.

We can furnish inside doors to match these doors made of Clear Fir in sizes 2-8x6-8 and 2-0-7-0. Write for our low prices.

SIZES		VERNON		TACOMA		ROSLYN		Shipping Weight Pounds
Width Ft. In. Ft. In.	Thickness	10-Z-1430 Glazed Clear D. S. A.	10-Z-1431 Glazed Beveled Plate	10-Z-1432 Glazed Clear D. S. A.	10-Z-1433 Glazed Beveled Plate	10-Z-1434 Glazed Clear D. S. A.	10-Z-1435 Glazed Beveled Plate	
2-8 x 6-8.....	1 1/2 inches	\$14.90	\$17.90	\$13.55	\$16.14	\$13.85	\$16.18	130
3-0 x 7-0.....	1 1/2 inches	17.00	22.13	14.17	19.04	16.10	18.85	150

Attractive Front Doors Priced Very Low

Here are three beautiful designs especially adapted for the bungalow home. Well made and as strong and substantial as any other high grade door on the market.

Douglas Fir is the most recent contender for public favor and is rightfully entitled to a place in the front ranks with oak, birch and other higher priced woods.

The fir doors have laminated panels showing the beautifully figured grain with which highly satisfactory results are obtained in finishing. When finished, no one but an expert could distinguish them from the most expensive hardwood doors.

We absolutely guarantee that no better door, either for appearance or quality, can be had anywhere at the price.



Winona



Columbia



Victoria

SIZES		WINONA		COLUMBIA		VICTORIA		Shipping Weight Pounds
Width Ft. Height In. Ft. In.	Thickness	10-Z-416 Glazed Clear D. S. A.	10-Z-417 Glazed Beveled Plate	10-Z-393 Glazed Clear D. S. A.	10-Z-394 Glazed Beveled Plate	10-Z-397 Glazed Clear D. S. A.	10-Z-398 Glazed Beveled Plate	
2-8 x 6-8.....	1 1/2 inches	\$6.08	\$10.97	\$7.11	\$12.66	\$ 8.24	\$13.77	80
3-0 x 7-0.....	1 1/2 inches	7.17	14.10	8.22	17.17	9.35	15.37	90
2-8 x 6-8.....	1 1/2 inches	7.47	12.36	8.52	14.41	9.65	15.17	95
3-0 x 7-0.....	1 1/2 inches	8.75	15.68	9.80	19.17	10.93	16.92	105

We list and carry in stock only four sizes of these Bungalow Doors, but we can also furnish them in the following sizes: 2-10x6-8 1 1/2 ins. thick and 3-0x6-8 1 1/2 ins. thick. Prices of either door same as 3-0x7-0 listed above.

Bungalow Doors With Individuality

Elegant Mission Style Front Doors

The popular demand for Craftsman and Mission Style of Architecture at the present time prompted us to design our Montesano, Salem and Aberdeen front doors.

These front doors are up to the minute in every way, being built along simple, yet elegant lines. They are made of Old Growth Soft Yellow Fir, with Solid Quarter-sawn Stiles and Rails and have beautifully figured, 3 ply, laminated Slash Grain Panels. They will take any stain or finish. At the extremely low prices that we are offering them you are getting a Hardwood Door value at a Pine price. They are truly beautiful doors.

You will find inside doors to match these front doors on one of the following pages.



Montesano



Salem



Aberdeen

SIZES			MONTESANO		SALEM		ABERDEEN		Shipping Weight Pounds
Width	Height	Thickness	10-Z-640 Glazed Clear Glass DS	10-Z-641 Glazed Beveled Plate Glass	10-Z-642 Glazed Clear Glass DS	10-Z-643 Glazed Beveled Plate Glass	10-Z-644 Glazed Clear Glass DS	10-Z-645 Glazed Beveled Plate Glass	
2 ft. 6 in. x 6 ft. 6 in.	1 1/4 inches	1 1/4 inches	\$ 5.16	\$ 8.51	\$ 7.41	\$11.37	\$6.96	\$10.25	70
2 ft. 8 in. x 6 ft. 8 in.			5.51	9.35	7.76	11.66	7.28	10.58	75
2 ft. 10 in. x 6 ft. 8 in.			5.69	9.87	7.94	12.84	7.50	11.51	80
2 ft. 10 in. x 6 ft. 10 in.			6.05	10.22	8.30	13.19	7.88	11.90	85
3 ft. 0 in. x 7 ft. 0 in.	1 1/4 inches	1 1/4 inches	6.50	11.15	8.75	13.95	8.37	12.78	90
2 ft. 8 in. x 6 ft. 8 in.			6.89	10.74	9.14	13.04	8.81	12.11	85
2 ft. 10 in. x 6 ft. 8 in.			6.99	11.33	9.24	14.28	9.11	13.13	85
3 ft. 0 in. x 6 ft. 8 in.			7.53	12.18	9.78	14.99	9.53	13.97	95
3 ft. 10 in. x 6 ft. 10 in.	1 1/4 inches	1 1/4 inches	7.55	11.73	9.80	14.70	9.57	13.58	95
3 ft. 0 in. x 7 ft. 0 in.			8.07	12.89	10.32	15.53	10.14	14.55	100



Washington



Pacific



Oregon

Standard Designs Front Doors in Clear Fir

Before this Pacific Coast product was considered a desirable commodity for the finer grades of workmanship this firm strong Fir-wood had been successfully exploited for many other purposes. It is our pleasure to offer a share in our good fortune, since it is demonstrated that this choice soft grained wood is well suited to the finest kinds of interior work, principally Doors and interior Casings, Base, etc., and the supply is almost inexhaustible, vast acres of forests being as yet untouched to this day.

Practically all known hard woods can be successfully imitated with Fir, through the use of our various shades of stain and oils. All made from firm first class Lumber, A-No. 1, strictly Clear stock.

1½-inch Thick SIZES		WASHINGTON		PACIFIC			OREGON			Shipping Weight Pounds
Width Ft. In.	Height Ft. In.	10-Z-378 Glazed Clear Glass D.S.A.	10-Z-379 Glazed Bevel Plate Glass	10-Z-390 Glazed Clear Glass D.S.A.	10-Z-391 Glazed Bevel Plate Glass	10-Z-392 Glazed Fancy Lace Design	10-Z-381 Glazed Clear Glass D.S.A.	10-Z-382 Glazed Bevel Plate Glass	10-Z-383 Glazed Fancy Lace Design	
2-6 x 6-6	\$6.09	\$16.74	\$ 9.08	\$19.72	\$10.22	\$5.87	\$13.16	\$6.77	95
2-8 x 6-8	6.63	19.44	9.71	22.40	10.84	6.36	14.88	7.26	105
2-10 x 6-10	7.56	22.14	10.52	25.18	11.65	6.87	16.67	7.77	115
2-8 x 7-0	7.41	20.85	10.40	23.71	11.63	6.90	16.28	7.80	115
3-0 x 7-0	8.08	24.08	11.01	27.06	12.14	7.74	19.58	8.64	120

We can furnish Washington, Pacific or Oregon doors 1 1/4 inches thick at \$1.50 extra excepting size 2-6x6-6.

Modern Flat Surface Sanitary Doors

Clear Red Oak



Tennyson



Bryant



Emerson

These doors are really beautiful pieces of furniture, ready for the finishing touches.

The "Tennyson" should be used mainly as a front door. The "Bryant" makes a perfect match for the vestibule. The "Emerson" would naturally be used as an interior door exclusively.

"Sanitary" doors have a perfectly plain surface, hence the commercial term "Sanitary Door." They present a smooth surface—gather no dust or dirt—the ideal sanitary door.

The "Emerson" door claims exclusive title as the "Slab Door," so called because it portrays, to all appearance, nothing but a slab cut from a beautifully grained log, but revealing upon closer inspection the handicraft of master workmen, improving upon the work of nature.

The veneering process of our Flush Doors is different from other methods; much stronger than a solid paneled door. The regular veneered doors are made 3-ply, whereas the Flush Doors are made 5-ply, containing a double layer of veneer on both sides of the core, the inner layer running crosswise, the core itself being protected in double fashion, making it impossible for the door to shrink, crack or warp. Doors should be given a coat of "filler" immediately. **DON'T STORE IN DAMP PLACE.**

SIZE		TENNYSON		BRYANT		EMERSON	Shipping Weight Pounds
Width Ft.	Height Ft. in.	Thickness	10-Z-207 Glazed Clear D. S. A.	10-Z-213 Glazed Beveled Plate	10-Z-226 Glazed Clear D. S. A.	10-Z-227 Glazed Beveled Plate	
2-8	x 6-8	1 1/4 inches	\$23.75	\$25.40	\$25.70	\$28.95	130
3-0	x 7-0	1 1/4 inches	27.35	28.95	29.30	32.65	
						10-Z-234	150
						\$20.95	
						24.60	

Only sizes listed carried in stock. Prices on other sizes on application.

RED OAK FRONT DOORS

Latest Craftsman Design

You will find our hardwood veneered doors to be of better than standard construction. They have white pine cores, interlocked and glued, making a door foundation that is strictly warp proof. Over this core or foundation is applied 1/4 inch thick oak veneer, a product of oak logs of the very best quality. The panels are glued with very best waterproof glue, making the door absolutely waterproof. The veneered door properly made is a great deal more durable than the solid door, as it will neither shrink, check or warp. Our doors are carefully manufactured from stock selected for its beauty of grain and color.

The Greenwood, Keystone and Rubens Doors make very neat and substantial front doors and are especially desirable for the present style bungalow and residence architecture.

Carried in stock in Veneered Oak only
1 1/4 inches thick



Greenwood



Keystone



Rubens

SIZE		GREENWOOD		KEYSTONE		RUBENS		Shipping Weight Pounds
Width Ft.	Height Ft. in.	Thickness	10-Z-442 Glazed Clear D. S. A.	10-Z-443 Glazed Beveled Plate	10-Z-447 Glazed Clear D. S. A.	10-Z-448 Glazed Beveled Plate	10-Z-240 Glazed Clear D. S. A.	
2-8	x 6-8	1 1/4 inches	\$12.77	\$16.28	\$13.87	\$16.86	\$15.73	110
3-0	x 7-0	1 1/4 inches	14.36	18.61	15.46	18.94	17.23	
							10-Z-241 Glazed Beveled Plate	125
							\$19.45	
							20.86	

Only sizes listed carried in stock. Prices on other sizes on application.

Interior Fir Doors, Beautiful Designs

Doors of Superior Quality

Clear Douglas Fir

You'll find these "Rainier," "Everett" and "Alberta" doors unsurpassed in beauty and individuality in design. All of super-quality throughout.

You'll be able to use these doors to advantage particularly where either Colonial, Mission or Craftsman style of architecture is desired.

They can be finished in natural wood, stained any color, or in Colonial White, with perfect satisfaction. They are made to match front doors of similar designs shown on previous page.

These doors are of superior manufacture, being made with the Solid Edge Grain Stiles and Rails, and with beautifully figured Slash Grain, 3 ply laminated Panels, guaranteed not to warp or twist.



Rainier



Everett



Alberta

SIZES		RAINIER		Shipping Weight, Pounds
Width	Height	10-Z-1917	Thickness, 1 1/2 In.	
Ft. In.	Ft. In.			
2-0 x 6-0	...	\$3.06		28
2-0 x 6-6	...	3.42		30
2-4 x 6-6	...	3.42		30
2-6 x 6-6	...	3.47		34
2-0 x 6-8	...	3.50		32
2-4 x 6-8	...	3.50		34
2-6 x 6-8	...	3.55		36
2-8 x 6-8	...	3.57		38
2-0 x 7-0	...	4.05		38
2-4 x 7-0	...	4.05		38
2-6 x 7-0	...	4.08		40
2-8 x 7-0	...	4.19		42
3-0 x 7-0	...	4.49		46

For door 1 1/2 inches thick, add \$9.50 extra.

SIZES		EVERETT		Shipping Weight, Pounds
Width	Height	10-Z-1919	Thickness, 1 1/2 In.	
Ft. In.	Ft. In.			
2-0 x 6-0	...	\$2.85		28
2-0 x 6-6	...	3.21		30
2-4 x 6-6	...	3.21		30
2-6 x 6-6	...	3.26		34
2-0 x 6-8	...	3.28		32
2-4 x 6-8	...	3.28		34
2-6 x 6-8	...	3.35		36
2-8 x 6-8	...	3.36		38
2-0 x 7-0	...	3.81		38
2-4 x 7-0	...	3.81		38
2-6 x 7-0	...	3.84		40
2-8 x 7-0	...	3.93		42
3-0 x 7-0	...	4.22		46

For door 1 1/2 inches thick, add \$2.50 extra.

SIZES		ALBERTA		Shipping Weight, Pounds
Width	Height	10-Z-1921	Thickness, 1 1/2 In.	
Ft. In.	Ft. In.			
2-0 x 6-0	...	\$3.15		28
2-0 x 6-6	...	3.52		30
2-4 x 6-6	...	3.52		30
2-6 x 6-6	...	3.57		34
2-0 x 6-8	...	3.60		32
2-4 x 6-8	...	3.60		34
2-6 x 6-8	...	3.65		36
2-8 x 6-8	...	3.68		38
2-0 x 7-0	...	4.17		38
2-4 x 7-0	...	4.17		38
2-6 x 7-0	...	4.20		40
2-8 x 7-0	...	4.31		42
3-0 x 7-0	...	4.62		46

For door 1 1/2 inches thick, add \$2.50 extra.



Olympia



Seattle



Portland

Clear Fir Panel Doors

These beautiful clear fir doors are made with straight grain stiles and rails, which are best for strength, and with slash grain panels, best for beauty, thus forming a rare combination of durability and style.

Straight grain resists all warping and twisting tendencies. Panels in the 1 and 2 panel doors being laminated or "built-up" prevents them from shrinkage and curling out of shape, because of the built-up process of three layers with the grain running in opposite directions which cannot help but keep them straight. Panels in the 5 cross panel doors are thick solid raised panels.

Reproductions on this page were taken after the doors were treated with Mahogany stain, bringing out the tiniest curls of the slash grain in the panels, blending gracefully with the soft tones of the straight wood stiles. All first quality, A-No. 1 Clear Stock.

SIZES		OLYMPIA		Shipping Weight, Pounds
Width	Height	10-Z-327	Thickness	
Ft. In.	Ft. In.			
2-0 x 6-0	...	\$3.06	1 1/2 inches	28
2-0 x 6-6	...	3.42		30
2-4 x 6-6	...	3.42		30
2-6 x 6-6	...	3.47		34
2-0 x 6-8	...	3.50		32
2-4 x 6-8	...	3.50		34
2-6 x 6-8	...	3.55		36
2-8 x 6-8	...	3.57		38
2-0 x 6-10	...	4.23		40
2-0 x 7-0	...	4.05		36
2-4 x 7-0	...	4.05		38
2-6 x 7-0	...	4.08		40
2-8 x 7-0	...	4.18		42
3-0 x 7-0	...	4.49		46
2-8 x 6-8	...	4.95	1 1/2 inches	46
2-10 x 6-10	...	5.90		52
2-6 x 7-0	...	5.86		50
2-8 x 7-0	...	5.82		54
3-0 x 7-0	...	6.26		58

SIZES		SEATTLE		Shipping Weight, Pounds
Width	Height	10-Z-326	Thickness	
Ft. In.	Ft. In.			
2-0 x 6-0	...	\$2.76	1 1/2 inches	28
2-0 x 6-6	...	3.08		30
2-4 x 6-6	...	3.08		30
2-6 x 6-6	...	3.12		34
2-0 x 6-8	...	3.18		32
2-4 x 6-8	...	3.18		34
2-6 x 6-8	...	3.23		36
2-8 x 6-8	...	3.25		38
2-0 x 6-10	...	3.84		40
2-0 x 7-0	...	3.63		36
2-4 x 7-0	...	3.63		38
2-6 x 7-0	...	3.65		40
2-8 x 7-0	...	3.74		42
3-0 x 7-0	...	3.99		46
2-8 x 6-8	...	4.42	1 1/2 inches	46
2-10 x 6-10	...	5.25		52
2-6 x 7-0	...	5.05		50
2-8 x 7-0	...	5.18		54
3-0 x 7-0	...	5.58		56

SIZES		PORTLAND		Shipping Weight, Pounds
Width	Height	10-Z-325	Thickness	
Ft. In.	Ft. In.			
2-0 x 6-0	...	\$2.71	1 1/2 inches	28
2-0 x 6-6	...	3.03		30
2-4 x 6-6	...	3.03		30
2-6 x 6-6	...	3.07		34
2-0 x 6-8	...	3.13		32
2-4 x 6-8	...	3.13		34
2-6 x 6-8	...	3.18		36
2-8 x 6-8	...	3.20		38
2-0 x 6-10	...	3.79		40
2-0 x 7-0	...	3.58		36
2-4 x 7-0	...	3.58		38
2-6 x 7-0	...	3.60		40
2-8 x 7-0	...	3.69		42
3-0 x 7-0	...	3.94		46
2-8 x 6-8	...	4.37	1 1/2 inches	46
2-10 x 6-10	...	5.20		52
2-6 x 7-0	...	5.00		50
2-8 x 7-0	...	5.12		54
3-0 x 7-0	...	5.53		56

Beautiful Designs, Hardwood Front Doors



American Beauty



Shakespeare



Morning Glory

These Beautiful Doors Reflect Good Taste

The illustrations of Hardwood Front Doors shown on this page are as near like the original product as pictures can make them. Regular flat sawed veneers could not produce the flaky, curly grain. The improved rotary cut process makes the ordinary Birch resemble very closely the higher priced curly birch. In Oak Doors, most people would prefer this method of veneering to the finest quarter-sawed oak. But this is not the only modern improvement which distinguishes our doors from the common variety. They are different. That's it, built better. While this important feature makes our doors more valuable than the usual rotary veneered doors, our prices are actually on par and even lower than others can be bought for. For this reason we do not depend upon descriptive wording to sell our doors, but our ability to undersell is only another illustration of this company's progressiveness, for no other concern in the world would dare to offer doors of this character at such low figures.

Veneered Red Oak and Northern Birch
1 3/4 Inch Thick

1 1/2 Inch Thick	AMERICAN BEAUTY				SHAKESPEARE				MORNING GLORY				Shipping Weight Pounds
	Red Oak		Northern Birch		Red Oak		Northern Birch		Red Oak		Northern Birch		
	No. 10-Z-1 Glazed Clear D.S.A.	No. 10-Z-3 Glazed Beveled Plate	No. 10-Z-251 Glazed Clear D.S.A.	No. 10-Z-253 Glazed Beveled Plate	No. 10-Z-217 Glazed Clear D.S.A.	No. 10-Z-218 Glazed Beveled Plate	No. 10-Z-219 Glazed Clear D.S.A.	No. 10-Z-220 Glazed Beveled Plate	No. 10-Z-4 Glazed Clear D.S.A.	No. 10-Z-6 Glazed Beveled Plate	No. 10-Z-263 Glazed Clear D.S.A.	No. 10-Z-265 Glazed Beveled Plate	
SIZES													
Width Ft. In.													
Height Ft. In.													
2- 8 x 6- 8	\$13.77	\$22.83	\$11.75	\$21.62	\$16.27	\$28.65	\$14.25	\$27.32	\$18.27	\$31.70	\$16.25	\$28.81	130
2-10 x 6-10	14.79	25.53	12.59	24.31	17.29	28.32	.....	.....	19.29	33.86	17.09	30.91	140
2- 8 x 7- 0	14.43	24.54	.....	.....	.....	.....	.....	.....	18.93	33.41	16.89	30.43	145
2-10 x 7- 0	15.06	26.76	.....	.....	.....	.....	.....	.....	19.56	35.92	17.23	32.97	150
3- 0 x 7- 0	15.50	21.43	13.11	30.19	18.00	30.77	13.61	30.51	20.10	39.63	17.61	36.73	155

Only sizes listed are carried in stock. Prices on other sizes quoted upon application

Clear Oak Front Doors

"Quality and Style" is expressive of our hardwood doors, plus harmony, as shown in these doors.

Read on previous pages how well our hardwood veneered doors are built, none more lasting.

To those preferring a medium size glass effect for a front door, our Milton design satisfies this preference.

The Mozart and Gladstone doors make very neat and substantial front doors and are especially desirable where one does not want a full length glass effect and at the same time retain the benefit of plenty of light. The panel effect in both Mozart and Gladstone Doors is somewhat unusual—different from the ordinary paneled front doors on account of the wide embossed moulding.

Carried in stock in Veneered Oak
1 3/4 Inches Thick



Mozart



Milton



Gladstone

SIZES			MOZART		MILTON		GLADSTONE		Shipping Weight Pounds
Width Ft. In.	Height Ft. In.	Thickness	10-Z-264 Glazed Clear D.S.A.	10-Z-266 Glazed Beveled Plate	10-Z-252 Glazed Clear D.S.A.	10-Z-254 Glazed Beveled Plate	10-Z-283 Glazed Clear D.S.A.	10-Z-284 Glazed Beveled Plate	
2-8 x 6-8	1 1/4 inches	\$15.39	\$21.98	\$12.27	\$18.99	\$19.20	\$25.43	130
2-10 x 6-10	1 1/4 inches	10.47	24.02	13.19	20.03	19.60	27.54	140
3-0 x 7-0	1 1/4 inches	17.34	26.47	13.98	23.44	20.50	30.82	155

Only listed sizes carried in stock. Prices on other sizes on application

Superior Quality Hardwood Panel Doors

Modern Interior Doors should harmonize with the exterior, especially with the front door. A perfect match can be made by the wide variety we offer.

The panels are laminated, that is, built up from several layers of veneer and core, the grain of the cores running in opposite directions. Thus one layer counteracts the working of the other layer next to it and the result is a continuous, non-warping panel.

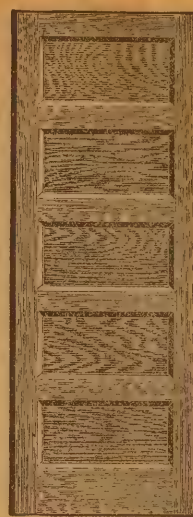
The highest grade of workmanship goes into our Hardwood Doors. They are as beautifully flaked and figured as the front doors, therefore, will permit the finishing in the natural wood. Birch can be stained to imitate mahogany.

The Birch Doors being naturally very close grained, will take the finest eggshell and white enamel finish.

Guaranteed Interlocking Core Construction In Veneered Red Oak and Northern Birch



Elite



Roseland



Kenwood

Be Sure to State Thickness				ELITE				Be Sure to State Thickness				ROSELAND				KENWOOD				Shipping Weight Pounds
SIZES				Red Oak No. 10-Z-9		Northern Birch No. 10-Z-10		SIZES				Red Oak only No. 10-Z-7		Red Oak No. 10-Z-335		Northern Birch No. 10-Z-336				
Width Ft. In.	Height Ft. In.	Thickness		1 1/4-inch thick	1 1/4-inch thick	1 1/4-inch thick	1 1/4-inch thick	Width Ft. In.	Height Ft. In.	Thickness		1 1/4-inch thick	1 1/4-inch thick	1 1/4-inch thick	1 1/4-inch thick	1 1/4-inch thick	1 1/4-inch thick			
2-0	x 6-0			\$7.59		\$5.57		2-0	x 6-0			\$6.91		\$10.44		\$ 8.41		55		
2-0	x 6-6			7.76		5.70		2-0	x 6-6			7.07		10.60		8.54		60		
2-4	x 6-6			8.13		5.97		2-4	x 6-6			7.45		10.98		8.86		62		
2-6	x 6-6			8.40		6.17		2-6	x 6-6			7.72		11.25		9.02		77		
2-0	x 6-8			7.80		5.72		2-0	x 6-8			7.13		10.66		8.58		79		
2-2	x 6-8			7.97		5.85		2-2	x 6-8					10.82		8.70		80		
2-4	x 6-8			8.18		6.00		2-4	x 6-8			7.51		11.04		8.87		82		
2-6	x 6-8			8.45		6.21		2-6	x 6-8			7.78		11.31		9.06		84		
2-8	x 6-8			8.78	\$10.66	6.45	\$8.33	2-8	x 6-8			8.10	\$ 9.98	11.63		9.31		86		
2-10	x 6-10			9.53	11.41	7.02	8.90	2-10	x 6-10			8.66	10.74	12.39		9.87		90		
2-0	x 7-0			7.77		6.21		2-0	x 7-0			7.78		11.31		9.06		85		
2-2	x 7-0			8.61		6.38		2-2	x 7-0			7.94		11.47		9.19		88		
2-4	x 7-0			8.84		6.50		2-4	x 7-0			8.15		11.68		9.35		90		
2-6	x 7-0			9.26	11.14	6.69	3.57	2-6	x 7-0			8.42	10.30	11.95		9.55		95		
2-8	x 7-0			9.42	11.30	6.93	8.81	2-8	x 7-0			8.75	10.63	12.28		9.79		100		
2-10	x 7-0			9.80	11.68	7.22	9.10	2-10	x 7-0			9.13	11.01	12.66		10.08		105		
3-0	x 7-0			10.23	12.11	7.55	9.43	3-0	x 7-0			9.56	11.44	13.09		10.40		110		



Longwood



Orange Blossom



Magnolia

High Grade Pine Front Doors

Our line of Soft Pine Front Doors cannot be equalled for durability and wearing qualities. Weather defying in the greatest possible measure, you cannot possibly get greater money measure. Of solid, substantial construction, they resist the element's powers of destruction.

You want a door that is strictly first-class, a door that not only will class first at the start in the highest rank, but a door that will be in the race to the last, a door on which you can "bank." You have the pictures of such doors before you, actual photographs.

You cannot make a mistake, whatever your choice—you will choose a good door—at a low price.

Clear and Clean—First Quality Soft Pine Suitable for Oil Finish

LONGWOOD				ORANGE BLOSSOM				MAGNOLIA			
SIZES				SIZES				SIZES			
Width Ft. In.	Height Ft. In.	Thickness		Width Ft. In.	Height Ft. In.	Thickness		Width Ft. In.	Height Ft. In.	Thickness	
2-8 x 6-8	1 1/4 inch	\$12.55		2-8 x 6-8	1 1/4 inch	\$11.12		2-8 x 6-8	1 1/4 inch	\$9.12	
3-0 x 7-0	1 1/4 inch	13.34		2-10 x 6-10	1 1/4 inch	11.85		2-10 x 6-10	1 1/4 inch	9.50	
				2-8 x 7-0	1 1/4 inch	11.79		2-8 x 7-0	1 1/4 inch	9.48	
				3-0 x 7-0	1 1/4 inch	12.44		3-0 x 7-0	1 1/4 inch	10.15	

For Orange Blossom and Magnolia doors 1 1/4 inches thick add \$1.40 extra.

Exceptional Values for Home-Builders



Laurel



Violet

Clear Soft Pine

We have made it a point to show a large variety of Front Door designs so that there may be freedom of choice in addition to relief from high prices and buyers will have so many styles from which to choose that no difficulty will be experienced in picking out one or more suitable designs.

Our "Mignonette" is a plain, cross-paneled door with an almost square light of glass.

Our "Laurel" door is an unusual value, glazed with long oval glass, combination scenic and lace effect. A heavy, raised panel surrounds it. This is strictly a door of merit and, at our price, a great bargain.

The "Tulip" and "Violet" designs are quite plain and free from ornamentation.

These doors will take any kind of finish—oil, paint or enamel.



Mignonette



Tulip

For Any of These Doors 1 1/4 Inch Thick Add \$1.50

LAUREL		VIOLET		1 1/4-Inch Thick SIZES	MIGNONETTE		TULIP		Shipping Weight Pounds
10-Z-347	10-Z-348	10-Z-36	10-Z-37		10-Z-32	10-Z-33	10-Z-40	10-Z-388	
Glazed Lace Design as shown	Glazed Clear D.S.A.	Glazed Clear D.S.A.	Glazed Flower design as shown	Width Ft. In.	Height Ft. In.	Glazed Clear D.S.A.	Glazed Lace Design as shown	Glazed Chipped or Frosted Glass	
\$10.92	\$ 9.42	\$4.59	\$5.49	2- 6 x 8- 6	4.73	\$4.34	\$5.24	\$4.59	70
11.42	9.92	5.01	5.91	2- 8 x 8- 8	4.73	5.63	5.63	5.01	75
12.15	10.65	5.55	6.45	2-10 x 8-10	5.22	6.12	6.12	5.57	80
12.09	10.59			2- 8 x 7- 0	5.11	6.01	6.01	5.45	80
12.72	11.22	6.06	6.96	3- 0 x 7- 0	5.67	6.57	6.57	6.06	90

Colonial and French Doors in Clear Soft Pine

These Virginia, Carolina and Maryland Colonial and French Doors represent something of the very latest in the way of French, Balcony and Vestibule Doors. You'll also find them very desirable for sun parlors and sleeping porches, and where plenty of light is wanted.

These doors are made of beautiful California White Pine, being well manufactured in every respect. The bars are extra heavy and are mortised into the stiles and rails, making them exceptionally strong and preventing them from twisting and sagging. The stiles and top rails are 5 1/4" wide, while the bottom rail is 1 1/2" wide. The glass is held in place with wood stops and not with putty.

Can be finished natural, stained or painted white for either in or outside use.

For French doors in pairs see page 28



Virginia



Carolina



Maryland

		VIRGINIA		CAROLINA		MARYLAND		Shipping Weight Pounds
Sizes	Thickness	10-Z-1150	10-Z-1151	10-Z-1152	10-Z-1153	10-Z-1154	10-Z-1155	
		Glazed D. S. A.	Gl. Beveled Plate	Glazed D. S. A.	Gl. Beveled Plate	Glazed D. S. A.	Gl. Beveled Plate	
2-8 x 0-8.....	1 3/4 Inches	\$ 8.19	\$20.79	\$ 9.22	\$21.97	\$ 8.54	\$22.84	80
3-0 x 7-0.....		9.59	23.69	10.66	30.20	9.94	25.65	100
2-8 x 0-8.....	1 3/4 Inches	9.40	22.22	10.72	26.54	9.82	24.20	100
3-0 x 7-0.....		11.16	25.26	12.45	31.56	11.58	27.32	115

Wonderful Values in Durable Front Doors



Golden Glow



Honeysuckle

First Quality Clear Soft Pine

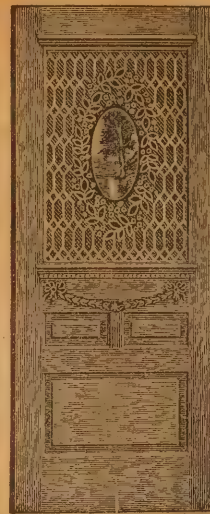
A quartet of door values not to be excelled in quality and impossible to match in price.

"Golden Glow" with clear glass, or glazed beveled plate as illustrated, is a decorative addition to any residence.

The "Honeysuckle" door is a plain design, well built to support the full length glass.

"Larkspur" door is more decorative, having a strand of carving under the glass and a neat panel arrangement.

Look at the picture of our "Radiance" door and consider the remarkable bargain we offer. A very pretty design glazed with the very latest pattern of leaded crystal as shown in the illustration. Will take any kind of finish—oil, paint or enamel.



Larkspur



Radiance

Note: For any door on this page
1 1/4 inch thick add \$1.50

1 3/8 Inches Thick	GOLDEN GLOW		HONEYSUCKLE		LARKSPUR		RADIANCE		Shipping Weight Pounds
SIZES Width Height Ft. In. Ft. In.	10-Z-333 Glazed Clear D.S.A.	10-Z-334 Glazed Beveled Plate	10-Z-15 Glazed Clear D.S.A.	10-Z-16 Glazed Beveled Plate	10-Z-373 Glazed Lace Design as shown	10-Z-374 Glazed Clear D.S.A.	10-Z-317 Glazed Leaded Crystal	10-Z-319 Glazed Leaded Bev. Plate	
2-6 x 6-6.....	\$4.52	\$12.72							70
2-8 x 6-8.....	4.89	14.17	\$5.82	\$18.60	\$ 8.81	\$7.61	\$11.75	\$20.78	75
2-10 x 6-10.....	5.42	16.47	6.63	21.54	9.50	8.30	12.90	23.25	85
2-8 x 7-0.....	5.30	16.38	6.51	19.94					80
3-0 x 7-0.....	5.88	18.52	7.04	23.07	10.02	8.82	14.00	25.94	90

Handsome, Clear, Clean Soft Pine Doors

"The Popular Favorites"

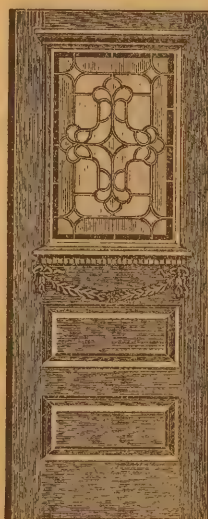
If there is any single thing about a house from which it is customary to judge its occupants, that one thing is the front door.

All of our front doors are solidly built of carefully selected and thoroughly seasoned lumber, with mortised and tenoned joints, strongly glued, and as perfectly made as is possible with the aid of expert mechanics and the latest improved door-making machinery.

Here we show three beautiful doors, any one of which is bound to make a favorable impression upon the visitor to your home. We furnish these doors glazed in the handsome lace and leaded art glass designs as illustrated, or in clear glass—either "A" quality D. S. or Beveled Plate.



Goldenrod



Jessamine



Colonial

1 1/4-Inch Thick	GOLDENROD			JESSAMINE			Shipping Weight Pounds	COLONIAL			
SIZES Width Height Ft. In. Ft. In.	10-Z-18 Glazed Lace as shown	10-Z-17 Glazed Clear D.S.A.	10-Z-19 Glazed Beveled Plate	10-Z-330 Glazed, Leaded Colored Art as shown	10-Z-331 Glazed Clear D.S.A.	10-Z-332 Glazed Beveled Plate		Width Ft. In.	Height Ft. In.	Thickness	10-Z-324 Shipping Weight Pounds
2-8 x 6-8.....	\$11.09	\$ 9.89	\$19.98	\$13.92	\$6.77	\$18.63	80				
2-10 x 6-10.....	11.67	10.47	22.01	15.53	7.37	20.73	85				
2-8 x 7-0.....	11.64	10.44	21.98				80				
3-0 x 7-0.....	12.24	11.04	25.23	17.09	7.77	22.97	90	2-8 x 6-8.....	1 1/4 In.	\$5.55	65
								3-0 x 7-0.....	1 1/4 In.	6.59	75

We can furnish the Goldenrod or Jessamine door, 1 1/4 inches thick, \$1.50 extra.

Clear White Pine Panel Doors of Quality

"A" Grade or "B" Grade

All of our panel doors are made by the same process, with extra strong joints, mortised and tenoned. By the term "A" Quality, we mean the best of clear, selected stock of the highest grade, suitable for any style of finish.

We get our "B" Quality doors by a careful re-grading of our "A" doors, as we occasionally sort out some which are not quite up to our high standard. Thus our "B" doors

run much better than the ordinary "B" grade. We do not recommend our "B" doors for Oil Finish, but they are entirely suitable for paint, stain or enamel finish.

Mammoth Stocks

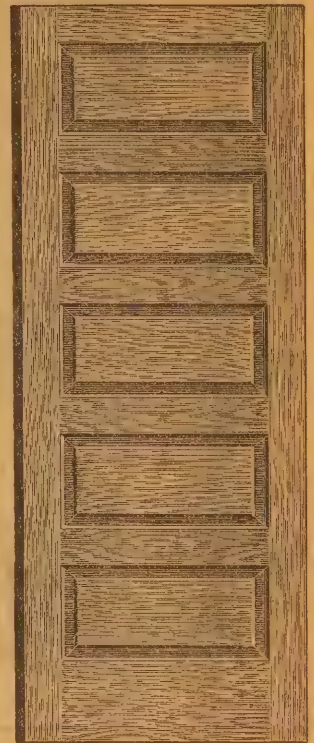
Superior Finish



10-Z-56
Four Panel



10-Z-57
Five Panel



10-Z-59
Five Cross Panel

Four Panel Doors White Pine

10-Z-56

SIZES		Thick,	"A"	"B"	Ship.
Ft.In.	Ft.In.	In.	Quality	Quality	Wt. Lbs.
2-0	x 6-0	1 1/8	\$2.53	\$2.38	24
2-6	x 6-6	1 1/8	3.12	2.97	30
2-8	x 6-8	1 1/8	3.31	2.16	32
3-0	x 7-0	1 1/8	3.90	3.70	38
2-0	x 6-0	1 1/8	2.84	2.64	28
2-4	x 6-6	1 1/8	2.98	2.78	30
2-6	x 6-6	1 1/8	3.29	3.09	32
2-8	x 6-8	1 1/8	3.46	3.26	34
2-0	x 6-8	1 1/8	3.03	2.83	34
2-2	x 6-8	1 1/8	3.36	3.16	34
2-4	x 6-8	1 1/8	3.36	3.16	34
2-6	x 6-8	1 1/8	3.51	3.31	36
2-8	x 6-8	1 1/8	3.68	3.48	38
2-10	x 6-10	1 1/8	4.08	3.88	40
2-0	x 7-0	1 1/8	3.29	3.09	36
2-4	x 7-0	1 1/8	3.63	3.43	38
2-6	x 7-0	1 1/8	3.79	3.59	40
2-8	x 7-0	1 1/8	3.97	3.77	42
2-10	x 7-0	1 1/8	4.13	3.93	44
3-0	x 7-0	1 1/8	4.32	4.12	46
2-8	x 6-8	1 1/8	4.73	4.53	50
2-10	x 6-10	1 1/8	5.23	5.03	54
2-6	x 7-0	1 1/8	4.88	4.68	52
2-8	x 7-0	1 1/8	5.10	4.90	54
2-10	x 7-0	1 1/8	5.31	5.11	56
3-0	x 7-0	1 1/8	5.52	5.32	58

Five Panel Doors White Pine

10-Z-57

SIZES		Thick- ness In.	"A"	"B"	Ship Wt. Lbs.
Ft.In.	Ft.In.		Quality	Quality	
2-0	x 6-0	1 1/8	\$2.98	\$2.78	28
2-0	x 6-6	1 1/8	3.13	.....	30
2-4	x 6-6	1 1/8	3.46	3.26	32
2-6	x 6-6	1 1/8	3.63	3.43	34
2-0	x 6-8	1 1/8	3.18	2.98	32
2-4	x 6-8	1 1/8	3.53	3.33	34
2-6	x 6-8	1 1/8	3.68	3.48	36
2-8	x 6-8	1 1/8	3.86	3.66	38
2-10	x 6-10	1 1/8	4.28	4.08	40
2-0	x 7-0	1 1/8	3.46	.....	36
2-4	x 7-0	1 1/8	3.81	.....	38
2-6	x 7-0	1 1/8	3.98	3.78	40
2-8	x 7-0	1 1/8	4.16	3.96	42
2-10	x 7-0	1 1/8	4.33	4.13	44
3-0	x 7-0	1 1/8	4.53	4.33	46
2-8	x 6-8	1 1/8	4.96	.....	50
2-10	x 6-10	1 1/8	5.48	.....	54
2-6	x 7-0	1 1/8	5.11	.....	52
2-8	x 7-0	1 1/8	5.33	.....	54
2-10	x 7-0	1 1/8	5.56	.....	56
3-0	x 7-0	1 1/8	5.78	.....	58

Five Cross Panel Doors White Pine

10-Z-59

SIZES		Thick- ness In.	"A" Quality	"B" Quality	Ship. Wt. Lbs.
Width Ft. In.	Height Ft. In.				
2-0	x 6-0.	1 3/8	\$3.00	\$2.80	28
2-0	x 6-6.	1 3/8	3.15	.....	30
2-6	x 6-6.	1 3/8	3.65	3.45	34
2-0	x 6-8.	1 3/8	3.20	.....	32
2-4	x 6-8.	1 3/8	3.55	3.35	34
2-6	x 6-8.	1 3/8	3.70	3.50	36
2-8	x 6-8.	1 3/8	3.88	3.68	38
2-10	x 6-10.	1 3/8	4.30	4.10	40
2-0	x 7-0.	1 3/8	3.48	.....	36
2-4	x 7-0.	1 3/8	3.83	.....	38
2-6	x 7-0.	1 3/8	4.00	3.80	40
2-8	x 7-0.	1 3/8	4.18	3.98	40
3-0	x 7-0.	1 3/8	4.55	4.35	44

SIZES		Thick- ness Inches	"A" Quality	Ship. Wt. Lbs.
Width Ft. In.	Height Ft. In.			
2-8	x 6-8.....	1 3/8	\$4.98	50
2-10	x 6-10.....	1 3/8	5.45	54
2-6	x 7-0.....	1 3/8	5.13	52
2-8	x 7-0.....	1 3/8	5.35	54
3-0	x 7-0.....	1 3/8	5.80	58

NOTE—In ordering Doors be sure and specify Kind, Style, Thickness, Grade, how many panels and Catalog number.

Bevel or Plain Full Length Mirror Doors



Full length Mirror Doors can no longer be considered a luxury since we are offering them at a price so reasonable that practically the humblest citizen can afford its conveniences. While primarily an article of feminine utility, the men folks will recognize and appreciate its advantages over a short mirror and will not begrudge its low cost, since it combines the useful purpose of both door and wall mirror at a lower price and reduces danger of breakage.

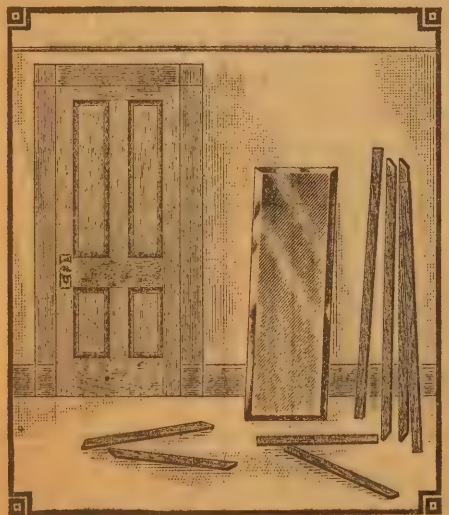
You probably have never looked at the matter in this light, so if your means do not permit the purchase of a console by all means secure the same actual service in our Mirror Door. You have plenty of choice as to sizes, three kinds of wood, two thicknesses and both plain and Beveled Plate Mirror. Naturally you will want your mirror door in your dressing room and as a closet door it will serve the double purpose admirably.

Our mirrors are of the regular standard American Beauty grade—noted for their high luster and lasting qualities. The mirror side of the door is finished as shown in the picture. The other side is regularly finished, two panel, like our "Elite and Seattle" door. Can also be furnished with one or five cross panels. Our Mirror Doors are packed so well that they cannot be marred in transit.

1½-in. Thick SIZES		Size of Mirror	PRICES OF "FULLVIEW" MIRROR DOOR						Ship- ping Wgt., Lbs.
			Red Oak		Northern Birch		Fir		
			10Z289 Plain Plate Mirror	10Z290 Bevel Plate Mirror	10Z291 Plain Plate Mirror	10Z292 Bevel Plate Mirror	10Z293 Plain Plate Mirror	10Z294 Bevel Plate Mirror	
Width	Height								
Ft. In.	Ft. In.								
2'-0"	x 6'-8"	14" x 64"	\$23.25	\$26.31	\$21.90	\$24.96	\$18.52	\$21.58	75
2'-2"	x 6'-8"	16" x 64"	25.89	28.91	24.49	27.51	20.68	23.70	80
2'-4"	x 6'-8"	18" x 64"	27.84	30.90	26.44	29.50	22.63	25.69	85
2'-6"	x 6'-8"	20" x 64"	30.16	33.22	28.71	31.77	24.84	27.90	90
2'-8"	x 6'-8"	22" x 64"	33.76	36.94	32.34	35.58	28.23	31.41	95
2'-0"	x 6'-8"	14" x 68"	24.01	27.07	22.67	25.73	20.00	23.06	75
2'-2"	x 6'-8"	16" x 68"	26.47	29.53	24.67	27.73	22.46	25.52	80
2'-4"	x 6'-8"	18" x 68"	28.47	31.53	26.67	29.73	24.46	27.52	85
2'-6"	x 6'-8"	20" x 68"	30.86	34.03	29.04	32.07	26.84	29.88	90
2'-8"	x 6'-8"	22" x 68"	33.43	36.43	31.61	34.61	29.41	32.41	95
2'-0"	x 7'-0"	14" x 70"	25.43	28.49	23.81	26.87	22.17	25.23	75
2'-2"	x 7'-0"	16" x 70"	28.00	31.36	26.53	29.59	24.84	27.90	80
2'-4"	x 7'-0"	18" x 70"	30.33	33.77	28.82	31.82	27.17	30.23	85
2'-6"	x 7'-0"	20" x 70"	32.89	36.25	31.35	34.41	29.70	32.76	90
2'-8"	x 7'-0"	22" x 70"	37.66	42.16	36.06	40.56	34.10	37.40	95

Any of the above sizes furnished 1½-inch thick, \$2.00 extra. Write for prices on other woods.

It's Easy to Make Any Door a Mirror Door



COMPLETE OUTFIT for a home-made mirror door consists of heavy plate mirror; thin strips to form a bed between the face of the door and the glass; mouldings of special design to frame the mirror and hold it firmly in place; and a sufficient number of round-headed brass screws.

Prices, Mirror Door Outfit No. 10-Z-500

Size of Mirror	Plain Plate	Beveled 1½ inch	Size of Door	Shipping Wt., Lbs.
16 x 60	\$16.01	\$18.89	2'-0" x 6'-0"	50
16 x 66	17.67	20.70	2'-0" x 6'-6"	52
20 x 66	21.74	24.92	2'-6" x 6'-6"	55
22 x 66	25.82	30.08	2'-8" x 6'-6"	60
16 x 68	18.17	21.44	2'-0" x 6'-8"	60
20 x 68	22.34	25.58	2'-6" x 6'-8"	62
22 x 68	26.57	30.99	2'-8" x 6'-8"	64
24 x 68	28.82	33.15	2'-8" x 6'-8"	68
16 x 72	19.14	22.59	2'-0" x 7'-0"	72
20 x 72	23.57	27.00	2'-6" x 7'-0"	74
22 x 72	28.02	32.61	2'-8" x 7'-0"	76
24 x 72	30.42	35.03	2'-8" x 7'-0"	78

Order by No. 10-Z-500

How to Order: Take the measurement of your door just outside of the panel part, allowing at least one-half inch all around for the mirror to rest upon. Then select your size from the accompanying table. In ordering, be sure and specify whether plain or beveled plate mirror is desired and state your preference in mouldings—Yellow Pine, Oak or Birch (if no preference is given, Yellow Pine will be furnished). The Mirror Mouldings, Strips and Screws will come in one box, carefully wrapped and packed to insure against damage in shipment.

Instructions: Any door of the ordinary kind can be made into a mirror door in a jiffy and you can do the work yourself. **First:** Take the door off the hinges and lay it flat on the floor or on trestles. **Second:** Place the thin strips evenly on the face of the door and lay the mirror on top. **Third:** Sew the mouldings into place. (The mouldings are already fitted and mitred.) **Fourth:** A real mirror door, just as good for all practical purposes as if you had bought a new one. (Note:—The outer edges of the moulding and strips used for backing should be exactly even to obtain the best results.)



Sliding Doors and Inside Frames



10-Z-440

DOUBLE SLIDING DOORS
Illustrations show Double Sliding Doors. These doors, like all our other stock doors, are of superior manufacture. The 5 X Panel Doors are made of strictly clear California white pine throughout and the 2 Panel Doors shown to the right are made of Fir with selected edge grain stiles and rails and beautifully figured slash grain 3 ply laminated panels, guaranteed not to warp or twist. We absolutely guarantee that no better doors, either in appearance or quality, can be had anywhere at the prices.

PRICES FOR DOUBLE SLIDING DOORS

Sizes	Thick- ness	5 X Panel 10-Z- 440	2 Panel 10-Z- 441	Ship. Wt. Lbs.
4-0 x 8-8	1 1/2"	\$6.40	\$6.36	70
5-0 x 8-8	1 1/2"	7.40	6.46	75
5-1 x 8-8	1 1/2"	7.76	6.50	80
4-0 x 7-0	1 1/2"	6.90	7.26	75
5-0 x 7-0	1 1/2"	8.00	7.30	85
5-4 x 7-0	1 1/2"	8.36	7.48	95
6-0 x 7-0	1 1/2"	9.10	8.00	100

We can furnish Double Sliding Doors 1 1/4 ins. thick at \$3.00 extra over above prices. Note: We do not carry in stock Single Sliding Doors, but make them up special to order. We can make single sliding doors similar to our double sliding doors, of the same excellent quality and shipment about four weeks after receipt of order. Write us for special prices on Single Sliding Doors.



10-Z-441

Inside Jambs for Doors and Openings

Lumber from which our interior jambs are made is cut smooth and true, clear face stock. Side jambs dadoed for heads, heads cut square and straight. Prices do not include inside doorstops, which are extra. See price list below. Also listed elsewhere in this catalog. About 20 lineal feet of stops required for each inside frame.

Standard Door Jambs Without Stops

No. 10-Z-101—Inside door jambs for 2x4 studding, for doors 2 ft. 6 in. by 6 ft. 6 in. and under—Yellow Pine—Price each.....\$1.10
2 ft. 8 in. by 6 ft. 8 in.\$1.18
2 ft. 10 in. by 6 ft. 10 in.1.24
3 ft. by 7 ft.1.28

Intermediate sizes take next higher price.

No. 10-Z-602—Inside door jambs for 2x4 studding, for doors 2 ft. 6 in. by 6 ft. 6 in., or smaller sizes—Red Oak—Price each.....\$2.70

No. 10-Z-603—Same as above, except for sizes up to 2 ft. 8 in. by 6 ft. 8 in.—Red Oak—Price each.....\$2.80

No. 10-Z-604—Same as above, except for sizes up to 3 ft. by 7 ft.—Red Oak—Each.....\$2.95

SPECIAL—Add for Yellow Pine stops to price of Yellow Pine Jambs per set.....35c

SPECIAL—Add for Red Oak stops to price of Red Oak Jambs per set.....48c

Yellow Pine Jambs Weigh Approximately 18 Pounds Shipping Weight.

Red Oak Jambs Weigh Approximately 28 Pounds Shipping Weight.

Sliding Door Jambs for Double Doors



Inside Door Jamb,
or Inside Door
Frame for Stand-
ard Wall 2x4 5x3
Siding.

\$1¹⁰
AND UP

Clear Fir Jambs
add 10% to Yellow
Pine prices

Unselected Birch
Jambs same price
as Red Oak

Inside Cased Opening Jambs

Cased opening jambs are made the same as regular standard door jambs except for wider and higher openings. Price covers one complete frame made for 2x4 studding without stops. For stops see elsewhere on the moulding pages.

SIZE Ft. In. Ft. In.	10-Z-625 Yellow Pine	10-Z-626 Plain Red Oak	Shipping Weight Pounds
5-0 x 7-0.....	\$1.45	\$3.40	30
8-0 x 8-0.....	1.65	4.10	40
9-0 x 9-0.....	1.85	4.50	45

Sliding Door Jambs for Single Doors

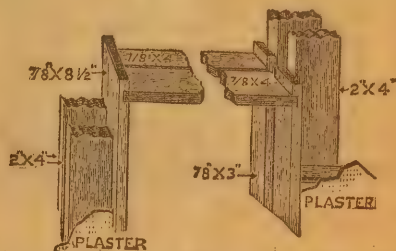


Illustration shows a sectional view of single sliding door. Prices below are for complete frame without stops, and furnished for 2x4 studding set edgewise as shown in illustration.

No. 10-Z-619—Single Sliding Door jambs for openings up to 6 ft. by 7 ft. high—Yellow Pine—Price per set.....\$2.65

No. 10-Z-621—Single Sliding Door jamb for sizes up to 6 ft. wide by 7 ft. high—Red Oak—Price per set.....\$5.45

SPECIAL—Add for Yellow Pine stop to price of Yellow Pine Single Sliding jambs, per set.....\$1.05

SPECIAL—Add for Red Oak stop to price of Red Oak Single Sliding jambs, per set.....\$1.90

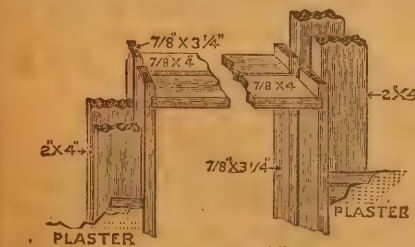


Illustration shows a sectional view of double sliding door jambs for a pair of Sliding Doors. The same high quality material as our standard jambs for regular Doors shown above. Prices below are for complete frame without stops, and furnished for 2x4 studding set edgewise as shown in illustration.

No. 10-Z-615—Double Sliding Door jambs for openings up to 6 feet wide by 7 feet high—Yellow Pine—Price per set.....\$2.45

No. 10-Z-617—Double Sliding Door jambs for openings up to 6 feet wide by 7 ft. high—Red Oak—Price per set.....\$4.95

SPECIAL—Add for Yellow Pine Stops to price of Yellow Pine Sliding Door jambs, per set.....\$1.05

SPECIAL—Add for Red Oak Stops to price of Red Oak Sliding Door jambs, per set.....\$1.90

Impressive Front Entrances

"Colonial" Front Entrance

In our Colonial Front Entrance we present you an entrance true to type, correctly proportioned and of splendid design. This entrance should grace a house of Colonial Architecture, and this type has been a favorite with many high class American homes for over a century. Of course, you do not have to adhere to the style of door, sidelights or transom shown. You can select any other design shown in this book to fit the openings. But for fine appearance we recommend this entrance just as illustrated.

SPECIFICATIONS: The frame is hand made of Clear Oregon Fir, a wood which is best suited for exterior use because it stands up under severe weather changes. The outside casing is 1½"x4¼". The sill is 1½"x7½". Jambes are 1½"x5½", rabbeted to receive doors 1½" thick and furnished in this manner unless ordered to the contrary.

The workmanship is first class and the Entrance reaches you finely finished and smoothly sanded ready to receive first priming coat of paint. The frame is shipped knocked down, but perfectly fitted ready to put together. That part of the frame above the door and sidelights, which includes the transom bar and head jamb, is completely assembled and reaches you in one piece, so there is very little work necessary except to nail the jamb and sill to the head and the frame is complete.

The door illustrated in this Entrance is our "Colonial" 3-0x7-0, 1¾, No. 10-Z-324, the sidelights, each 1-2x7-0, 1¾, our No. 10-Z-205 glazed Leaded Glass and the transom our No. 10-Z-407.

Prices of Frame Only

No. 10-Z-360. Colonial Entrance frame only. **\$28.75**
Price
Shipping Weight approximately 160 pounds.

Prices of Complete Frame

No. 10-Z-365. Colonial Front Entrance, complete with door, sidelights and transom as shown in cut to the right **\$63.65**
Price—Hardware not included.....
Shipping Weight approximately 290 pounds.



COLONIAL FRONT ENTRANCE

"Englewood" Front Entrance

The Englewood Front Entrance like the Colonial Front Entrance above is made of the same excellent quality of material and workmanship throughout.

SPECIFICATIONS: The frame is hand made of Clear Oregon Fir, a wood which is best for external use because it stands up under severe weather changes. The outside casing is 1½"x4¼". The sill is 1½"x7½". Jambes are 1½"x5½", rabbeted to receive doors 1½" thick and furnished in this manner unless ordered to the contrary. The frame is shipped knocked down and perfectly fitted ready to nail together.

The door shown in the Entrance to the left is our Shakespear No. 10-Z-218, 3-0x7-0, 1¾. Clear Red Oak glazed Bevel Plate Glass, the sidelights, each 1-2x7-0, 1¾, our No. 10-Z-405 Clear Red Oak Glazed Bevel Plate Glass, shown on pages 16 and 24 respectively.

We can furnish this Entrance with either one or two sidelights and also with transom over the door and sidelights. In the diagram below we show four different styles and you can select any door, sidelight or transom you desire to fill the openings in the frames.

Prices

No. 10-Z-408. Englewood Front Entrance, complete, per specifications above, glazed in Clear Double Strength Glass. **\$45.60**
Price

No. 10-Z-410. Ditto above, but glazed with Clear Bevel Plate as shown in illustration. **\$76.30**
Price

Shipping Weight approximately 320 pounds

Prices do not include hardware. For price on frames only, see below.

Front Entrance Frames

SPECIFICATIONS: For wood buildings, our frames are made with Crown Mould Cap Head, 1½"x4¼" outside Casing, 1½"x5½" Jamb, 1½"x7½" Sill. For brick building where the wall is 13 inches thick our frames are made with 1½"x10½" Jamb, and 1½"x2" Brick Moulding.

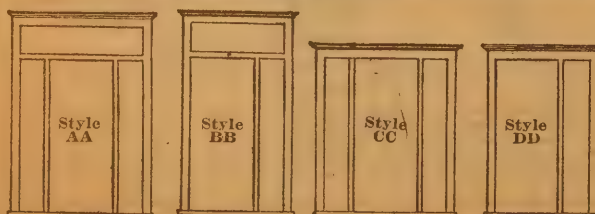
Prices below cover frames only, with door opening up to 3 ft. x 7 ft.; Sidelight opening up to 1 ft. 2"x7 ft. and transom opening up to 18 inches-high. All frames are shipped knocked down ready to put together.

Style of Frame	For Wood Building	Price	For 13-inch Brick Wall	Price
"AA"	10-Z-450	\$13.25	10-Z-452	\$15.95
"BB"	10-Z-470	12.95	10-Z-474	14.80
"CC"	10-Z-460	11.75	10-Z-464	13.75
"DD"	10-Z-480	9.95	10-Z-484	11.65

Oak Frames for 13-inch Brick Wall, 50% extra.

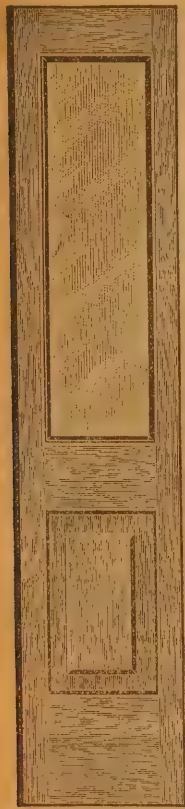


ENGLEWOOD FRONT ENTRANCE



Attractive Designs in Sidelights and Transoms

For Front Entrances and Vestibules. Our Sidelights and Transoms are made from selected woods, "A" Quality Soft Pine, Clear Red Oak and Clear Northern Birch. The attractive designs shown here are very popular and thoroughly in harmony with our own Front Entrance designs illustrated on opposite page. Sidelight No. 205 can be furnished with Leaded Glass like No. 209. We also furnish No. 209 glazed plain (not leaded) either D. S. Glass or Bevel Plate.



10-Z-205



10-Z-209



10-Z-402



10-Z-403



10-Z-405

SIZES 1 1/2 Inch Thick Width Height Ft. In. Ft. In.	10-Z-205		10-Z-209				10-Z-402				10-Z-403		10-Z-405	
	White Pine		White Pine		Red Oak		White Pine		Red Oak		Red Oak		Red Oak	
	Gla. Clear D. S. A.	Gla. Like No. 209	Gla. Plain D. S. A.	Gla. Ldd.as Shown	Gla. Plain D. S. A.	Gla. Bev. Plate	Gla. Clear D. S. A.	Gla. Bev. Clear Plate	Gla. Clear D. S. A.	Gla. Bev. Clear Plate	Gla. Clear D. S. A.	Gla. Bev. Clear Plate	Gla. Clear D. S. A.	Gla. Bev. Clear Plate
1-2 x 6-8	\$3.70	\$5.95	\$4.35	\$6.98	\$7.35	\$14.75	\$6.87	\$13.95	\$15.75	\$21.90	\$7.71	\$14.95	\$9.15	\$18.95
1-2 x 7-0	3.85	6.15	4.75	7.35	7.65	15.75	7.15	14.75	16.85	23.45	8.35	16.45	9.55	19.75

Oak and Birch Side Light 1 1/2 inch thick, 10% extra.



Transom No. 10-Z-401



Transom No. 10-Z-404.



Transom No. 10-Z-410



Transom No. 10-Z-407

Transoms No. 10-Z-404 and 10-Z-407 can be furnished glazed leaded beveled plate. Write for prices.

SIZES 1 1/2 Inch Thick Ft. In. Ft. In.	10-Z-401				10-Z-410		10-Z-404		10-Z-407	
	White Pine		Oak or Birch		Glazed Clear, D. S.		Glazed Leaded Crystal		Leaded Cryst.	Glazed Clear
	G1.1Lt.D.S.	G1.2Et.D.S.	G1.1Lt.D.S.	G1.2Lt.D.S.	White Pine	Oak-Birch	White Pine	Oak-Birch	White Pine	D. S. Glass
4-6 wide, up to 1-6 high	\$2.74	\$2.91	\$4.25	\$2.50	\$9.75	\$12.55	\$6.35	\$7.85	\$15.75	\$11.69
4-8 wide, up to 1-6 high	2.84	2.96	4.35	4.60	9.95	11.71	6.59	8.20	16.40	11.72
6-0 wide, up to 1-6 high	3.89	3.77	5.35	5.60	12.95	13.29	8.52	10.05	19.30	13.68
6-4 wide, up to 1-6 high	4.47	3.98	5.98	6.25	13.85	14.08	8.90	10.40	19.95	15.25

The 6 foot and 6 foot 4 inch sizes are for frame made for 3 foot door in width and for two Sidelights, 1 foot 2 inches wide, while the 4 foot 6 inch size is for frame, made for one Sidelight only. Transom prices remain the same if narrower doors than 3 foot are used.

Sliding or Swinging Garage and Warehouse Doors

The Austin and Ashland Doors are made of selected white pine lumber in our own factory. These doors are machine made and are much better and cheaper than hand made doors. Each



AUSTIN

door measures 4 feet wide and 8 feet high; 2 doors, or one pair, will fill a standard opening 8 feet wide x 8 feet high. We carry these doors in stock and can always make prompt shipment. When shipping, the doors are carefully crated and are guaranteed to reach you in good condition.



ASHLAND

AUSTIN DOOR						ASHLAND DOOR						
Catalog Number	Size of each door			2 doors will fill opening	Price per pair 2 doors	Catalog Number	Size of each door			2 doors will fill opening	Price per pair 2 doors	Shipping Weight Pounds
	Width	Height	Thickness				Width	Height	Thickness			
10-Z-501	4 Ft.	8 Ft.	1½ inches	8 Ft.x8 Ft.	\$25.75	10-Z-502	4 Ft.	8 Ft.	1½ inches	8 Ft.x8 Ft.	\$26.35	240

Bargains in Wood Store Fronts



"Economy" Store Front

This illustration shows our Economy Store Front which we furnish with recess sash exactly like illustration or with a straight front without the recess sash. Separate prices quoted as per table below. Prices include all sash and transoms fitted with stops, one pair of doors, also all posts, transom bars and sills furnished in the knock-down, all machined out and ready to set up, and material for panels. We furnish all the glass in clear double strength "A" quality, which is shipped separately securely packed and boxed to insure against breakage in transit.

Prices of "Economy" Store Front

SIZES		OPENING SIZES OF DOORS IN PAIRS		10-Z-563 With Recess as Shown D. S. Glass	10-Z-564 Without Recess D. S. Glass
Width Feet	Height Feet	Width Ft. in.	Height Ft. in.		
20	10	5-0	7-0	\$170.74	\$138.52
22	10	5-0	7-0	179.46	149.14
24	10	6-0	7-0	184.50	153.30
20	11	5-0	7-0	187.02	152.64
22	11	5-0	7-0	204.02	178.92
24	11	6-0	7-0	224.74	195.48
20	12	5-0	8-0	207.72	191.34
22	12	5-0	8-0	229.78	197.64
24	12	6-0	8-0	243.36	201.06

We furnish with each order for our Store Fronts a complete set of Architects' Blue Print Plans, detail sheets and list specifying what each piece is for and where it is to be used, which make the work of installation easy and rapid.



Plate Glass Store Front

This is a popular design of modern store front of wood construction as illustrated in the lower corner. Priced in two different ways: First, exactly as shown in picture, all glass polished plate. Prices in the second column in price table below cover plate glass only for the two large sash. All other glass will be furnished in clear double strength "A" quality glass and the two recess sash as well as the transom sash will be divided in two lights instead of one light. All glass will be shipped separately securely packed and boxed to prevent breakage in transit.

Prices for this front include all sash and transoms fitted with stops, one pair of doors, also all posts, transom bars and sills furnished in knock-down, all machined out and ready to set up, and material for panels.

Prices of Plate Glass Store Front

SIZES		OPENING SIZES OF DOORS IN PAIRS		10-Z-565 As Shown all Glass Plate	10-Z-566 2 Large Sash Plate Balance D. S.
Width Feet	Height Feet	Width Ft. in.	Height Ft. in.		
20	10	5-0	7-0	\$404.45	\$263.16
22	10	5-0	7-0	432.35	292.90
24	10	6-0	7-0	464.97	301.23
20	11	5-0	8-0	449.55	303.25
22	11	5-0	8-0	484.10	330.48
24	11	6-0	8-0	521.90	350.02
20	12	5-0	8-0	497.15	315.19
22	12	5-0	8-0	536.75	335.04
24	12	6-0	8-0	576.57	369.06

We can furnish anything and everything in Store Fronts. Send your details for our prices.

Durable Multifold Door Combinations

1 3/4 Inch Thick White Pine—For Garages, Warehouses, Etc.



Phoenix—No. 10-Z-1444



Atlas—No. 10-Z-1445



Arrangement showing a triple combination of Atlas Doors, making a total opening of 8 ft. wide by 8 ft. high.

Our Multifold Combination Garage and Warehouse Doors are made of White Pine, one of the best woods known for exterior use. The stiles and rails of the doors are mortised and wedged, which construction gives you not only a substantial door, but a door that is more durable. The panels are extra heavy and solid, being set into the grooves of the stiles and rails by means of special machinery, making it impossible for the panel to warp or check.

In offering you these doors it is our intention to give you the best value obtainable for the money, and we must ask that you do not confuse these doors with the so-called "just-as-good-makes" on the market at the present time. Remember, our doors are made of White Pine, of mortised and wedged construction, and equipped with non-warp panels—three distinct and essential features necessary to make a good garage or warehouse door.



Single

Guaranteed
Non-Warp
Panels



Double

Stiles and
Rails
Mortised
and
Wedged



Triple

Kiln Dried
White Pine
Machine
Sanded
Finish



Quadruple

MULTIFOLD COMBINATION	SINGLE DOOR	DOUBLE COMBINATION	TRIPLE COMBINATION	QUADRUPLE COMBINATION	Each Door 2'8" x 8'0" Weights 110 Lbs. Shipp'g Weight
Size of each door.....	2'8" x 8'	2'8" x 8'0"	2'8" x 8'	2'8" x 8'	
Total size.....	2'8" x 8'	5'4" x 8'0"	8' x 8'	10'8" x 8'	
Price Phoenix, 10-Z-1444.....	\$8.60	\$16.90	\$24.00	\$33.00	
Price Atlas, 10-Z-1445.....	8.70	17.10	25.20	33.60	

ORNAMENTAL THUMB LATCHES AND HANDLES
4-Z-3633. Bronze finish. For doors 3/4 to 1 1/4 inches thick. Complete with screws. Each... **15c**

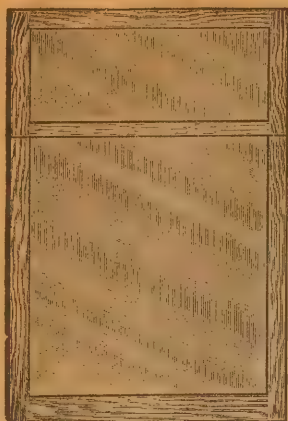
RIM DEAD LOCK
4-Z-3439. Japanned iron case, 5x8 1/4 inches. Heavy wrought iron bolt, steel inside bolts, two nickel plated steel folding keys. Complete with screws. Price... **85c**

JAPANNED LOOSE PIN BALL TIPPED STEEL BUTTS
4-Z-3577. Made of heavy steel, nicely japanned. Price, per pair, including screws. Pair... **32c**

STEEL CHAIN BOLTS
Length, 6 inches, with 2 feet of chain. Screws to match. 4-Z-3511. Plated Antique copper. **48c**

FOOT BOLTS
Electro plated wrought steel, spring release. Length, 6 inches. Screws to match. 4-Z-3515. Plated Antique copper. **45c**

Beautiful Artistic Designs in Cottage Windows



Plain View



New Art



Niagara



Yellowstone

We show a number of the best designs in cottage windows and we are confident that a choice can be made to suit the taste of the most fastidious. The different styles range from the clear, plain glass of our "Plainview" Window to the stately beauty of leaded beveled plate as exemplified in our "Aristocrat" design.

Our "New Art" and "Niagara" cottage windows represent two of the latest creations of modern art in glass. The designs in the top lights of both these windows are made of a combination of opalescent glass rich in color with a background of clear glass, producing an effect that displays taste and is most pleasing to the eye.

The "Yellowstone" cottage window with the top light of lace pattern glass is also beautiful, and particularly desirable where a medium priced window is wanted.

Glass Size, Bottom Sash, Width, Height	Glass Size, Top Sash, Width, Height	Outside Measure Width, Height	Plainview" 10-Z-64 Price	"New Art" 10-Z-69 Price	"Niagara" 10-Z-68 Price	Yellowstn. 10-Z-272 Price	"Crystal" 10-Z-66 Price	"Herald" 10-Z-281 Price	"Rainbow" 10-Z-282 Price	Aristocrat 10-Z-70 Price	Shipping Weight, Pounds
40" x 42"....	40" x 14"....	3'8" x 5'2"	\$5.36	\$ 9.83	\$ 9.21	\$7.46	\$ 8.63	\$ 9.24	\$ 9.21	\$13.50	84
40" x 40"....	40" x 16"....	3'8" x 5'2"	4.86	9.81	9.45	6.90	8.43	9.49	9.45	13.95	86
40" x 46"....	40" x 14"....	3'8" x 5'6"	5.91	10.10	9.18	7.22	8.90	9.52	9.48	13.75	100
44" x 40"....	44" x 16"....	4'0" x 5'2"	5.64	11.07	10.70	7.77	9.57	10.76	10.70	15.70	104
44" x 44"....	44" x 16"....	4'0" x 5'6"	5.89	11.34	10.97	8.04	9.84	10.94	10.97	16.95	110
44" x 48"....	44" x 13"....	4'0" x 5'10"	7.08	11.16	12.29	9.33	11.16	12.32	12.29	17.30	125

Our "Crystal" design in clear glass is one of the best examples of a leaded glass pattern. It is exactly the same in design as our "Aristocrat," differing from it only in that the top sash in the latter is beveled plate while the "Crystal" is all clear double strength glass.

We also show here two of the best designs in leaded colored art glass. Our "Herald" is made up after the same pattern as "Crystal" and "Aristocrat" and by a tasteful combination of colors, a real gem of a window results. Our "Rainbow" as its name implies, is a vari-colored design of leaded art glass. The colors are harmoniously blended and afford a shield from the sun's strong rays without making it necessary to draw the shades and exclude the light altogether.

The lists shown on this page are not complete as to sizes. We can furnish any standard size up to 50x50 inches with 50x22 inch transom and we will be glad to quote prices on request.



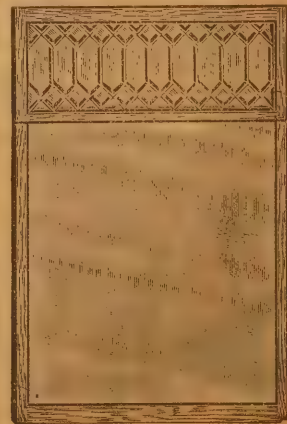
Crystal



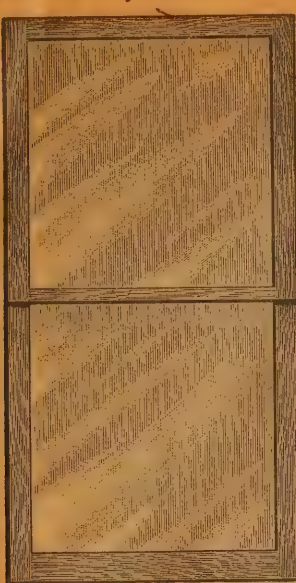
Rainbow



Herald



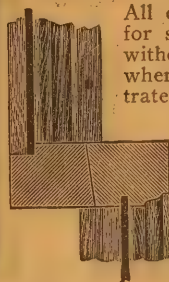
Aristocrat



Clear White Pine Windows

These windows are manufactured in our own shops. They are of clear white pine, kiln dried, sanded, primed, extra strong tacked, and puttied with high quality putty; also back puttied.

The term "window" means two sash—upper and lower.



All check rail windows are plowed and bored for sash cord and can be used either with or without weights. The check is the beveled rail where the two sash come together, as is illustrated in cross section cut shown at left.

When ordering be sure to give width first

Price includes both top and bottom sash

A window 28x28 2 lights check rail 1 1/2 inches thick is considered an average size and weighs 28 pounds, shipping weight. Other sizes will weigh more or less in proportion to sizes.



No. 10-Z-71

No. 10-Z-72

Two Light Check Rail Windows

1 1/2 inches thick

10-Z-71

Price per Window—Glazed		Outside Measure	
Size of Glass	Single Strength	Double Strength	W'th H'th Ft. In. Ft. In.
16x16	\$.07	1-8	8x8-2
16x18	1.05	1-8	8x8-6
16x20	1.14	1-8	8x8-10
16x24	1.30	1-8	8x8-10
16x26	1.46	1-8	8x8-10
16x28	1.54	1-8	8x8-10
16x30	1.61	2-05	1-8 8x8-6
18x20	1.25	1-52	1-10 8x8-10
18x22	1.40	1-81	1-10 8x8-2
18x24	1.52	1-85	1-10 8x8-6
18x26	1.59	2-06	1-10 8x8-10
18x28	1.70	2-19	1-10 8x8-10
18x30	1.80	2-33	1-10 8x8-10
20x20	1.46	1-78	2-0 8x8-10
20x22	1.57	1-94	2-0 8x8-2
20x24	1.65	2-05	2-0 8x8-6
20x26	1.76	2-17	2-0 8x8-10
20x28	1.84	2-31	2-0 8x8-10
20x30	1.89	2-49	2-0 8x8-6
20x32	2.10	2-75	2-0 8x8-10

Price per Window—Glazed		Outside Measure	
Size of Glass	Single Strength	Double Strength	W'th H'th Ft. In. Ft. In.
24x30	\$2.30	\$2.90	2-4 8x8-6
24x32	2.49	3.33	2-4 8x8-10
24x34	2.51	3.33	2-4 8x8-6
24x36	2.81	3.68	2-4 8x8-6
26x22	1.96	2.47	2-6 8x8-2
26x24	1.96	2.47	2-6 8x8-6
26x26	2.12	2.70	2-6 8x8-10
26x28	2.35	3.05	2-6 8x8-10
26x30	2.55	3.25	2-6 8x8-6
26x32	2.60	3.33	2-6 8x8-10
26x34	2.89	3.89	2-6 8x8-10
26x36	2.91	3.90	2-6 8x8-6

28x24	2.13	2.77	
28x26	2.35	2.98	2-8 8x8-10
28x28	2.55	3.25	2-8 8x8-2
28x30	2.58	3.27	2-8 8x8-6
28x32	3.02	3.85	2-8 8x8-10
28x34	3.12	3.90	2-8 8x8-10
28x36	3.25	4.38	2-8 8x8-6

30x24	2.31	2.90	2-10 8x8-6
30x26	2.57	3.25	2-10 8x8-10
30x28	2.60	3.30	2-10 8x8-2
30x30	3.30	3.84	2-10 8x8-6
30x32	3.34	3.91	2-10 8x8-10
30x34	3.53	4.38	2-10 8x8-10
30x36	3.57	4.42	2-10 8x8-6

32x24	2.60	3.28	3-0 1/4x4-6
32x26	2.65	3.33	3-0 1/4x4-10
32x28	3.02	3.87	3-0 1/4x5-2
32x30	3.18	3.87	3-0 1/4x5-6
32x32		4.38	3-0 1/4x5-10
32x34		4.42	3-0 1/4x6-2
32x36		4.99	3-0 1/4x6-6

34x24	2.52	3.33	3-2 1/8 x4-6
34x28	2.95	3.91	3-2 1/8 x5-2
34x30	3.53	4.42	3-2 1/8 x5-6
34x32		4.46	3-2 1/8 x5-10

Continued			
Price per Window—Glazed			Outside Measure
Size of Glass	Single Strength	Double Strength	W'th H'th Ft. In. Ft. In.
34x36	.....	\$5.50	3- 4 1/4 x 4- 6

36x24	\$2.73	\$3.67	3-4 1/4 x 4-1/4
36x26	2.91	3.91	3-4 1/4 x 4-1/4
36x28	3.22	4.38	3-4 1/4 x 5-1/4
36x30	3.54	4.40	3-4 1/4 x 5-1/4
36x32		4.99	3-4 1/4 x 5-1/4
36x34		5.49	3-4 1/4 x 6-1/4
36x36		5.50	3-4 1/4 x 6-1/4
40x28		4.97	3-8 1/4 x 5-1/4
40x30		5.02	3-8 1/4 x 5-1/4
40x32		5.53	3-8 1/4 x 5-1/4
40x34		6.44	3-8 1/4 x 6-1/4
40x36		6.46	3-8 1/4 x 6-1/4

Pantry Windows Two Light Check Rail

1 1/2 inches thick

10-Z-85

Size of Glass Inches	Price per Window Glazed	Outside Measure	
		W'th Ft. In.	H'th Ft. In.
12x20	\$0.94	1-4	3x8-10
12x24	1.09	1-4	3x8-6
12x26	1.16	1-4	3x8-10
12x28	1.23	1-4	3x5-5
12x30	1.33	1-4	3x5-6
14x20	1.02	1-6	3x8-10
14x24	1.21	1-6	3x8-6
14x26	1.25	1-6	3x8-10
14x28	1.40	1-6	3x5-5
14x30	1.47	1-6	3x5-6

Four Light Check Rail Windows

1 1/2 inches thick

10-Z-72

Glazed		Outside Measure	
Size of Glass	Single Strength	With Ft. In.	H't Ft. In.
10x20	\$1.45	2-	1x3-10
10x22	1.47	2-	1x4-2
10x24	1.65	2-	1x4-6
10x26	1.72	2-	1x4-10
10x28	1.90	2-	1x5-2
10x30	1.93	2-	1x5-6
10x32	2.14	2-	1x5-10

12x20	1.65	2-5x3-10
12x22	1.70	2-5x4-2
12x24	1.92	2-5x4-6
12x26	2.03	2-5x4-10
12x28	2.20	2-5x5-2
12x30	2.42	2-5x5-6
12x32	2.45	2-5x5-10
12x34	2.58	2-5x8-2
12x36	2.68	2-5x8-6

14x20	1.72	2-9x3-10
14x22	1.96	2-9x4-2
14x24	2.08	2-9x4-6
14x26	2.17	2-9x4-10
14x28	2.51	2-9x5-2
14x30	2.63	2-9x5-6
14x32	2.75	2-9x5-10
14x34	2.92	2-9x8-2
14x36	3.08	2-9x8-6

15x30	2.86	2-11x5-6
15x32	3.07	2-11x5-10
15x36	3.33	2-11x6-6

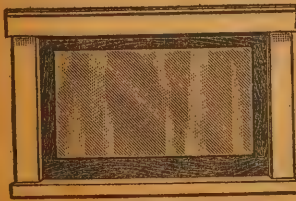
Clear White Pine Hall, Closet or Stair Landing Sash

MADE IN FIRST-CLASS MANNER OF CLEAR WHITE PINE

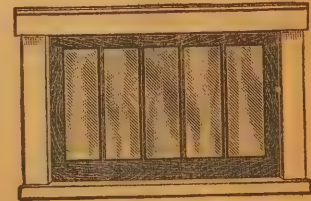
The side stiles and top rail are 2 in. wide while the bottom rail is 3 in. wide.

First quality material and manufacture. Glazed with clear glass, primed, puttied and back puttied. Exceptional values.

Price		Price	
10-Z-1411		10-Z-1413	
Glazed	5 Light	Glazed	5 Light
Size	Thickness	Size	Thickness
Inches	Inches	Inches	Inches
30x14	1 1/2	2-10x1-7	\$1.10
30x16	1 1/2	2-10x1-9	1.30
30x18	1 1/2	2-10x1-11	1.48
32x16	1 1/2	3-0x1-9	1.31
36x16	1 1/2	3-4x1-9	1.53
36x18	1 1/2	3-4x1-11	1.70
40x18	1 1/2	3-8x1-11	2.50



No. 10-Z-1411



No. 10-Z-1413



10-Z-74

Clear White Pine Windows

The Plain Rail Windows shown on this page are made of stock 1 1/2 inches thick and are usually held in place by spring bolts on one or both sides of each sash. A window of this kind is rarely put in a first class residence but for the cheaper houses and to be used in barns, sheds and shops, the plain rail window is all right and can be recommended. The same high grade stock is used as in our check rail windows and each sash is primed in white lead and oil, and the glass is well puttied in.

When ordering, be sure to give width first.

Prices for all windows on this page include top and bottom sash with glass puttied and back puttied.

A window 10x12 12 lights check rail 1 1/2 inches thick is considered an average size and weighs 25 pounds, shipping weight. Other sizes will weigh more or less in proportion to sizes.



10-Z-76

Eight Light Check Rail Windows

1 1/2 Inch Thick

10-Z-74

Our Check Rail Windows plowed and bored for sash and can be used with or without weights.

The Check Rail feature with the two sash come together, prevents rattling and makes the windows stormproof.

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
8x10	1 1/2	\$1.25	1- 9x3-10
8x12	1 1/2	1.40	1- 9x4- 6
9x12	1 1/2	1.19	1-11x4- 6
9x14	1 1/2	1.67	1-11x5- 2
10x12	1 1/2	1.65	2- 1x4- 6
10x14	1 1/2	1.85	2- 1x4- 6
10x16	1 1/2	2.20	2- 1x5-10
12x14	1 1/2	2.15	2- 5x5- 2
12x16	1 1/2	2.42	2- 5x5-10
12x18	1 1/2	2.65	2- 5x6- 6
14x16	1 1/2	2.80	2- 9x5-10
14x18	1 1/2	2.92	2- 9x6- 6
14x20	1 1/2		2- 9x7- 2

Twelve Light Check Rail Windows

1 1/2 Inch Thick

10-Z-76

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
8x10	1 1/2	\$1.76	2- 4 1/2 x3-10
8x12	1 1/2	1.92	2- 4 1/2 x4- 6
9x12	1 1/2	2.12	2- 7 1/2 x4- 6
9x14	1 1/2	2.28	2- 7 1/2 x5- 2
10x12	1 1/2	2.29	2-10 1/2 x4- 6
10x14	1 1/2	2.54	2-10 1/2 x5- 2
10x16	1 1/2	3.02	2-10 1/2 x5-10
10x18	1 1/2	3.21	2-10 1/2 x6- 6
12x14	1 1/2	3.02	3- 4 1/2 x5- 2
12x16	1 1/2	3.33	3- 4 1/2 x5-10
12x18	1 1/2	3.87	3- 4 1/2 x6- 6
12x20	1 1/2	4.02	3- 4 1/2 x7- 2

Plain Rail Windows Four Light

1 1/2 Inch Thick

10-Z-73

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
12x20	1 1/2	\$1.67	2- 5x3-10
12x24	1 1/2	1.96	2- 5x4- 6
12x26	1 1/2	2.07	2- 5x4-10
12x28	1 1/2	2.22	2- 5x5- 2

Plain Rail Windows Eight Light

10-Z-75

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
8x10	1 1/2	\$1.20	1- 8 1/2 x3-10
8x12	1 1/2	1.35	1- 8 1/2 x4- 6
9x12	1 1/2	1.44	1-10 1/2 x4- 6
9x14	1 1/2	1.62	1-10 1/2 x5- 2
10x12	1 1/2	1.60	2- 0 1/2 x4- 6
10x14	1 1/2	1.80	2- 0 1/2 x5- 2
10x16	1 1/2	2.15	2- 0 1/2 x5-10
12x14	1 1/2	2.10	2- 4 1/2 x5- 2
12x16	1 1/2	2.37	2- 4 1/2 x5-10

Plain Rail Windows Twelve Light

10-Z-77

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
7x 9	1 1/2	\$1.37	2- 1x3- 6
8x10	1 1/2	1.71	2- 4x4-10
8x12	1 1/2	1.87	2- 4x4- 6
8x14	1 1/2	1.96	2- 4x5- 2
9x12	1 1/2	2.07	2- 7x4- 6
9x14	1 1/2	2.23	2- 7x5- 2
9x16	1 1/2	2.30	2- 7x5- 6
10x12	1 1/2	2.24	2-10x4- 6

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
10x14	1 1/2	\$2.49	2-10x5- 2
10x16	1 1/2	2.60	2-10x5- 6
10x18	1 1/2	2.97	2-10x5-10
10x18	1 1/2	3.16	2-10x6- 6
12x14	1 1/2	2.97	3- 4x5- 2
12x16	1 1/2	3.28	3- 4x5-10

Factory Plain Rail Windows—Fifteen Light

10-Z-78

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
8x10	1 1/2	\$3.54	2- 4 1/2 x5-8 1/2
10x12	1 1/2	4.62	2-10 1/2 x5-6 1/2

Factory Plain Rail Windows—Eighteen Light

10-Z-79

Size of Glass	Thick-ness	Price per Window Glazed	Outside Measure W'th, H'th, Ft. In. Ft. In.
8x10	1 1/2	\$4.56	2- 4 1/2 x5-7 1/2
10x12	1 1/2	5.91	2-10 1/2 x6-7 1/2

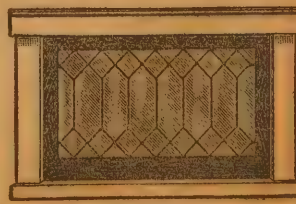
White Pine Hall, Closet or Stair Landing Sash



10-Z-1412

The side stiles and top rail are 2 in. wide while the bottom rail is 3 in. wide. Made of Clear White Pine. First quality material and manufacture. Glazed with clear glass, primed, puttied and back puttied. Exceptional values.

Glass Size Inches	Thickness Inches	Measure Outside Width Height ft. in. ft. in.	10-Z-1412 Price 8 Light Glazed	10-Z-1414 Price 12 Light Glazed
30x14	1 1/2	2-10x1- 7	\$2.27	\$3.56
30x16	1 1/2	2-10x1- 9	2.62	3.86
30x18	1 1/2	2-10x1-11	2.83	4.25
32x16	1 1/2	3- 0x1- 9	2.62	4.14
36x16	1 1/2	3- 4x1- 9	2.69	4.59
36x18	1 1/2	3- 4x1-11	3.10	5.06
40x18	1 1/2	3- 8x1-11	4.06	5.59



10-Z-1414

Queen Anne or Colonial Windows



10-Z-1337

10-Z-1342



10-Z-1340

10-Z-1341

Fancy Cut Up Top Sash Divided by Wood Bars

Checkrail 1 3/8" Thick

These are the best known and most popular designs in fancy cut up top sash. Wood bars are used to divide the lights and the work is done by hand, each piece being carefully mortised in and securely nailed. The sash are first primed in pure Linseed Oil and then glazed. Every light of glass is well puttied and will hold its place.

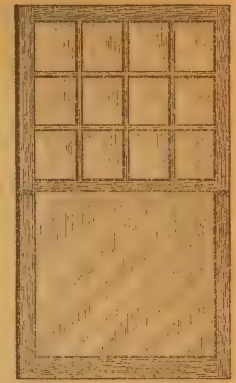
Price table below includes window complete as illustrated, top sash and bottom sash, glazed with clear glass.

Gla. S. S. means that the window is set with glass of single strength thickness.

Gla. D. S. means that the window is set with glass of double strength thickness.



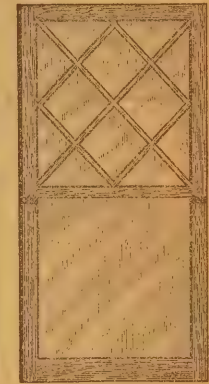
10-Z-1338



10-Z-1339



10-Z-1400



10-Z-1500

Number of Lights according to width of window.

Window No.	Glass Measure	Will be Furnished
10-Z-1341	Up to 24" wide	3 lights wide
10-Z-1341	24" to 32" wide	4 lights wide
10-Z-1341	32" to 40" wide	6 lights wide
10-Z-1400	Up to 20" wide	4 lights wide
10-Z-1400	20" to 24" wide	5 lights wide
10-Z-1400	24" to 32" wide	6 lights wide
10-Z-1400	32" to 40" wide	7 lights wide

A window 28x28 2 lights check rail 1 3/8 inches thick is considered an average size and weighs 28 pounds, shipping weight. Other sizes will weigh more or less in proportion to sizes.

Sizes Not Listed and Other Designs Can Be Furnished at Correspondingly Low Prices

Sizes of Glass	OUTSIDE MEASURE		10-Z-1337	10-Z-1338	10-Z-1339	10-Z-1340	10-Z-1341	10-Z-1342	10-Z-1400	10-Z-1400	10-Z-1400	10-Z-1400	10-Z-1400	10-Z-1400	10-Z-1400	10-Z-1400	10-Z-1400
	Width Ft. In.	Height Ft. In.	Gla. S.S.	Gla. D.S.	Gla. S.S.	Gla. D.S.	Gla. S.S.	Gla. D.S.	Gla. S.S.	Gla. D.S.	Gla. S.S.	Gla. D.S.	Gla. S.S.	Gla. D.S.	Gla. S.S.	Gla. D.S.	Gla. D.S.
16 x 20	1- 8 1/2	3- 10	\$2.27	\$2.66	\$2.41	\$2.76	\$2.70	\$3.04	\$2.93	\$3.36	\$1.76	\$2.09	\$1.98	\$2.30	\$2.97	\$3.28	\$3.43
16 x 24	1- 8 1/2	4- 6	2.50	2.93	2.62	3.02	2.91	3.32	3.21	3.64	1.96	2.27	2.17	2.56	3.15	3.56	3.63
20 x 20	2- 0 1/4	3- 10	2.65	3.18	2.76	3.29	3.04	3.58	3.36	3.88	2.09	2.59	2.30	2.80	3.27	3.82	3.77
20 x 24	2- 0 1/4	4- 6	2.90	3.54	3.01	3.63	3.29	3.92	3.61	4.22	2.33	2.92	2.54	3.12	3.53	4.16	4.03
20 x 28	2- 0 1/4	5- 2	3.14	3.86	3.23	3.97	3.53	4.27	3.84	4.56	2.55	3.25	2.76	3.44	3.77	4.50	4.25
22 x 24	2- 2 1/2	4- 6	3.02	3.67	3.13	3.79	3.42	4.08	3.72	4.38	2.44	3.07	2.64	3.30	3.66	4.33	4.13
22 x 26	2- 2 1/2	4- 10	3.14	3.84	3.23	3.97	3.57	4.27	3.84	4.56	2.55	3.25	2.76	3.44	3.77	4.50	4.25
22 x 28	2- 2 1/2	5- 2	3.27	4.09	3.36	4.17	3.67	4.48	3.98	4.78	2.68	3.43	2.88	3.64	3.90	4.74	4.39
22 x 30	2- 2 1/2	5- 6	3.50	4.40	3.60	4.50	3.89	4.80	4.21	5.10	2.89	3.70	3.10	3.94	4.12	5.03	4.67
24 x 20	2- 4 1/4	3- 10	2.90	3.54	2.84	3.63	3.29	3.92	3.61	4.22	2.45	3.04	2.54	3.12	3.86	4.69	4.02
24 x 24	2- 4 1/4	4- 6	3.27	4.04	3.36	4.16	3.67	4.45	3.98	4.75	2.80	3.53	2.83	3.62	4.22	5.00	4.39
24 x 26	2- 4 1/4	4- 10	3.29	4.07	3.39	4.17	3.70	4.48	4.00	4.77	2.82	3.55	2.90	3.64	4.25	5.04	4.41
24 x 28	2- 4 1/4	5- 2	3.50	4.40	3.60	4.50	3.89	4.80	4.21	5.10	3.00	3.86	3.10	3.94	4.46	5.36	4.62
24 x 30	2- 4 1/4	5- 6	3.71	4.68	3.81	4.77	4.10	5.06	4.40	5.38	3.20	4.12	3.29	4.20	4.67	5.62	4.82
26 x 26	2- 6 1/4	4- 10	3.50	4.40	3.60	4.50	3.90	4.80	4.21	5.10	3.00	3.86	3.10	3.94	4.46	5.36	4.62
26 x 28	2- 6 1/4	5- 2	3.78	4.59	3.87	4.86	4.19	5.17	4.49	5.47	3.28	4.14	3.36	4.28	4.73	5.72	4.88
26 x 30	2- 6 1/4	5- 6	4.03	5.13	4.12	5.23	4.42	5.59	4.74	5.86	3.50	4.55	3.60	4.64	4.99	6.08	5.15
28 x 28	2- 8 1/4	5- 2	4.03	5.13	4.12	5.23	4.42	5.59	4.74	5.86	3.50	4.55	3.60	4.64	4.99	6.08	5.15
28 x 30	2- 8 1/4	5- 6	4.06	5.15	4.16	5.26	4.45	5.59	4.75	5.87	3.53	4.57	3.62	4.66	5.02	6.16	5.18
28 x 32	2- 8 1/4	5- 10	4.60	5.90	4.71	6.02	5.00	6.31	5.31	6.61	4.06	5.28	4.14	5.36	5.57	6.87	5.72
30 x 24	2- 10 1/4	4- 6	3.70	4.68	3.80	4.77	4.10	5.06	4.40	5.38	3.20	4.12	3.38	4.20	4.68	5.62	4.82
30 x 26	2- 10 1/4	4- 10	4.02	5.16	4.16	5.23	4.45	5.56	4.79	5.86	3.53	4.49	3.62	4.66	5.02	6.10	5.18
30 x 28	2- 10 1/4	5- 2	4.82	5.87	5.02	5.99	5.32	6.38	5.62	6.58	4.36	5.26	3.64	5.36	5.88	6.93	6.04
30 x 30	2- 10 1/4	5- 6	4.98	5.92	5.06	6.05	5.37	6.41	5.75	6.63	4.40	5.28	4.48	5.38	5.92	6.89	6.08
30 x 32	2- 10 1/4	5- 10	4.98	5.92	5.06	6.05	5.37	6.41	5.75	6.63	4.40	5.28	4.48	5.38	5.92	6.89	6.08
32 x 28	3- 0 1/4	5- 2	4.60	5.92	4.71	6.02	5.02	6.31	5.31	6.61	4.29	5.52	4.14	5.36	5.88	7.18	5.72
32 x 30	3- 0 1/4	5- 6	4.98	5.93	4.78	6.04	5.38	6.36	5.75	6.64	4.64	5.54	4.48	5.22	6.24	7.20	6.08
36 x 28	3- 4 1/4	5- 2	5.05	6.55	5.14	6.65	5.43	6.95	5.73	8.11	4.71	6.12	4.55	5.97	6.32	7.86	6.25
36 x 30	3- 4 1/4	5- 6	5.45	7.36	5.56	6.68	5.86	6.97	6.16	8.12	5.10	6.15	4.94	6.00	6.74	7.88	6.57
36 x 28	3- 4 1/4	5- 10	....	7.38	....	7.45	....	7.76	....	8.07	....	6.88	....	6.73	....	8.64	....
40 x 28	3- 8 1/4	5- 2	....	....	....	7.50	....	7.79	....	8.11	....	6.93	....	6.77	....	8.68	....

Most Popular French Windows



10-Z-304



10-Z-305



10-Z-306

No home is complete without a pair of our handsome and artistic French Windows. They harmonize with any style of architecture. Made of best quality "A" grade Soft White Pine stock, glazed with clear double strength glass. They are furnished in pairs, rabbeted at the center where the sash join, in the manner of a cupboard door, thus insuring a close fit. Strong wood dividing bars are used and the sash are built in the most substantial manner. The three designs we show here are the most desirable as well as the most popular. All our French Windows are made to order only.

Price per Pair of French Windows

Opening Size	2-8x3-6	2-8x4-6	2-10x5-2	2-10x5-6	3-0x4-6	3-0x5-2	3-0x5-6	3-4x5-6	3-4x5-10	3-8x5-6	Shp. wt. lbs.
10-Z-304	\$4.62	\$5.74	\$7.05	\$7.38	\$6.48	\$7.05	\$7.38	\$7.90	\$8.29	\$8.57	40
10-Z-305	5.34	6.46	7.77	8.10	7.64	7.77	8.10	8.62	9.01	9.29	38
10-Z-306	4.39	5.17	5.65	6.04	6.03	6.49	6.04	6.60	7.70	8.06	38

In the more up-to-date residences, bungalows, and modern homes, French Doors and Windows are becoming increasingly popular. They add much to the charm and beauty of the home. A pair of these doors leading from your living room to the porch will add just the right touch to make a perfect ensemble. They are also used for balcony doors, or the opening to the conservatory or between rooms.

Furnished in "A" quality White Pine or Veneered Clear Red Oak or Northern Birch; glazed Clear "A" double strength glass, plain plate or the beautiful beveled plate glass.

These doors are extra strong and heavy, 1 1/2 in. thick. We carry these doors in Pine, Oak or Birch for immediate shipment.

We furnish a flat Astragal with each pair of doors, which can be nailed on at center where the doors join.

Quality French Doors



French Doors 10-Z-310 PRICES PER PAIR

For single French doors take half the price of a pair.

Glazed Clear Double Strength Glass

1 3/4 Inches Thick SIZES Ft. In Ft. In.	White Pine	Red Oak	North- ern Birch	Shp. wt. lbs.
4-0 x 6-8.....	\$17.28	\$23.31	\$19.90	150
4-0 x 7-0.....	18.53	23.71	20.34	150
5-0 x 6-8.....	18.61	24.39	21.06	180
5-0 x 7-0.....	19.57	25.00	21.24	180

Glazed Plain Plate Glass

4-0 x 6-8.....	\$31.58	\$37.35	\$33.98	200
4-0 x 7-0.....	32.49	37.62	34.20	200
5-0 x 6-8.....	39.60	45.45	42.07	210
5-0 x 7-0.....	40.50	45.72	42.35	210

Glazed Beveled Plate Glass

4-0 x 6-8.....	\$44.55	\$50.31	\$46.90	200
4-0 x 7-0.....	45.45	50.58	47.20	200
5-0 x 6-8.....	55.35	61.11	57.69	210
5-0 x 7-0.....	56.16	61.38	57.99	210

ELECTRO PLATED PLANISHED BALL TIPPED BUTTS

Electro Plated Planished. Made of the same grade steel and generally sold as a polished butt. In every sense equal to the high grade butts, except not as finely finished. Furnished with screws to match.

4-Z-3505. Antique Copper Finish. 8x3 in.
Per pair38c



CONCORD FRENCH WINDOW OR SCREEN DOOR SET

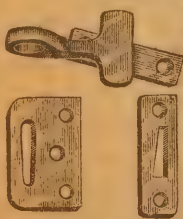
Reversible mortise latch 1 1/4 x 1 1/4 inch square hub for 5/16-inch spindle; brass front. Can be set by slide knob, which prevents opening from outside.

4-Z-15012. Lemon Brass. Each\$1.50
4-Z-15013. Antique Copper. Each\$1.50

For other French door and window bolts and locks, see Hardware pages of this book.



CASEMENT WINDOW FASTENERS



Cast iron plated; either right or left hand. Size of plate, 2 1/2 in. by 3/4 in. Has a double strike for single sash opening in, or pairs of sash opening out.

4-Z-15006. Plate Metal. Lemon Brass Finish. Each ...30c

4-Z-15007. Plate Metal. Antique Copper Finish. Each.....30c

CASEMENT WINDOW ADJUSTER

Made of plated steel rod, 3/8-inch diameter. This adjuster is for sash opening out and will hold the sash at any angle. Two finished.

4-Z-15004. Antique Copper. Each.42c
4-Z-15005. Lemon Brass. Each...42c



Single Sash Transoms and Outside Blinds

Single Sash

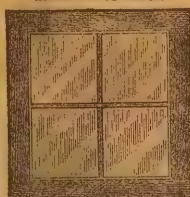


10-Z-84

One Light, 1½-Inch Thick

Size of Glass, Inches	Price, Glazed	Outside Measure Ft. In.	Ft. In.
18 x 20.....	\$0.84	1-10 x 2-1	
20 x 20.....	.94	2-0 x 2-1	
20 x 24.....	1.04	2-0 x 2-5	
24 x 24.....	1.22	2-4 x 2-5	
24 x 28.....	1.34	2-4 x 2-9	
24 x 30.....	1.42	2-4 x 2-11	

Barn Sash



10-Z-86

Four Lights, 1½-Inch Thick, 2-Inch Rail All Around

Size of Glass	Outside Measure	Price Glazed
8" x 10"....	1-8 x 2-1	\$0.70
9" x 12"....	1-10 x 2-5	.82
9" x 14"....	1-10 x 2-9	.92
10" x 12"....	2-0 x 2-5	.88
10" x 14"....	2-0 x 2-9	.98
10" x 16"....	2-0 x 3-1	1.18
12" x 14"....	2-4 x 2-9	1.18
12" x 16"....	2-4 x 3-1	1.28

6 Lights, 1½-Inch Thick

Size of Glass	Outside Measure	Price Glazed
8" x 10"....	2-4 x 2-1	\$0.94
9" x 12"....	2-7 x 2-5	1.14
10" x 12"....	2-10 x 2-5	1.22
10" x 14"....	2-10 x 2-9	1.47
10" x 16"....	2-10 x 3-1	1.77
12" x 16"....	3-4 x 3-1	1.92

Transom Sash



10-Z-80

Outside Measure Width Ft. In.	Outside Measure Height In.	Thickness	Price, 1 Lgt. Glazed
2-6 x 10.....		1½	\$0.58
2-6 x 12.....		1½	.60
2-6 x 14.....		1½	.66
2-6 x 16.....		1½	.72
2-8 x 10.....		1½	.60
2-8 x 12.....		1½	.64
2-8 x 14.....		1½	.68
2-8 x 16.....		1½	.78
2-8 x 18.....		1½	.90
2-8 x 20.....		1½	.96
2-10 x 12.....		1½	.72
2-10 x 14.....		1½	.84
2-10 x 16.....		1½	.94
2-10 x 18.....		1½	1.02
2-10 x 20.....		1½	.78
3-0 x 12.....		1½	.80
3-0 x 14.....		1½	.88
3-0 x 16.....		1½	.98
3-0 x 18.....		1½	1.08
3-0 x 20.....		1½	

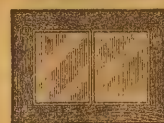
Stall Sash



10-Z-83

Glass Size	Outside Measure	Price per Sash, Glazed
10" x 12".....	1-2 x 1-5	\$0.44
10" x 14".....	1-2 x 1-7	.48
12" x 14".....	1-4 x 1-7	.54
12" x 16".....	1-4 x 1-9	.56

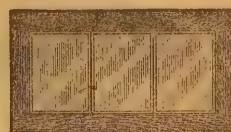
Cellar Sash



10-Z-81

Two Lights, 1½-Inch Thick

Size of Glass, Inches	Price, Glazed		Outside Measure W'th H'th Ft. In. In.	
	Single	D'b'l		
10 x 12.....	\$0.60	\$1.04	2-1 x 1-5	
10 x 14.....	.66	1.12	2-1 x 1-7	
10 x 16.....	.74	1.32	2-1 x 1-9	
10 x 18.....	.82	1.48	2-1 x 1-11	
10 x 20.....	.82	1.48	2-1 x 2-1	
12 x 12.....	.66	1.14	2-5 x 1-5	
12 x 14.....	.74	1.32	2-5 x 1-7	
12 x 16.....	.80	1.44	2-5 x 1-9	
12 x 18.....	.88	1.56	2-5 x 1-11	
12 x 20.....	.92	1.66	2-5 x 2-1	
14 x 16.....	.90	1.60	2-9 x 1-9	
14 x 18.....	.96	1.70	2-9 x 1-11	
14 x 20.....	1.02	1.84	2-9 x 2-1	



10-Z-82

Three Lights, 1½-Inch Thick

Size of Glass, Inches	Price Glazed		Outside Measure W'th H'th Ft. In. Ft. In.	
	Single	D'b'l		
7 x 9.....	\$0.52	\$0.94	2-1 x 1-2	
8 x 10.....	.58	1.06	2-4 x 1-3	
8 x 12.....	.64	1.16	2-4 x 1-5	
8 x 14.....	.70	1.32	2-4 x 1-7	
9 x 12.....	.68	1.24	2-7 x 1-5	
9 x 14.....	.74	1.36	2-7 x 1-7	
9 x 16.....	.80	1.48	2-7 x 1-9	
10 x 12.....	.74	1.34	2-10 x 1-5	
10 x 14.....	.80	1.46	2-10 x 1-7	
10 x 16.....	.86	1.54	2-10 x 1-9	
12 x 12.....	.84	1.58	3-4 x 1-5	
12 x 14.....	.96	1.78	3-4 x 1-7	
12 x 16.....	1.02	1.92	3-4 x 1-9	
12 x 18.....	1.14	2.12	3-4 x 1-11	

Outside Blinds and Shutters



There is nothing that can keep a house as cool in hot weather as trees, but blinds do almost as well.

Our Outside Blinds are made in pairs of two half sections and each unit price covers two half sections for the size window listed. Prices listed are for rolling slat outside blinds, not stationary slats.

Our Blinds are all made from strictly clear California White Pine, well manufactured, accurately machined and shipped unpainted.

The column under size of opening means that this is the measurement of the opening that the blinds are to be fitted into.

Note:—Blinds are made to order only and it usually requires 4 weeks to make shipment.

All Blinds Made 1½ Inches Thick

PRICES OF BLINDS NO. 10-Z-94

Size of Opening Ft. In.	Price Per Pair	Shipping Weight	Size of Opening Ft. In.	Price Per Pair	Shipping Weight
2-0½ x 3-11½..	\$2.52	15	2-8½ x 5-3½..	\$3.58	25 lbs.
2-4½ x 4-7½..	3.02	18	2-8½ x 5-7½..	3.78	26 lbs.
2-4½ x 5-8½..	3.45	20	2-8½ x 5-11½..	4.00	28 lbs.
2-4½ x 5-7½..	3.65	22	2-10½ x 5-7½..	3.85	26 lbs.
2-6½ x 5-3½..	3.51	22	2-10½ x 5-11½..	4.07	28 lbs.
2-6½ x 5-7½..	3.72	24	3-0½ x 5-11½..	4.51	30 lbs.

For sizes not listed, allow price of next larger size



Novel in design are Paneled Shutters, made to be used not alone on strictly Colonial homes, but on other style residences. In addition to ornamentation, they afford considerable attraction, keeping the house warmer in the winter and cooler in the summer.

Our Shutters are made in pairs of two half sections and each unit price covers two half sections for the size window listed.

Our Shutters are all made from strictly clear California White Pine, well manufactured, accurately machined and shipped unpainted.

The column under size of opening means that this is the measurement of the opening that the shutters are to be fitted into.

Note:—Shutters are made to order only and it usually requires 4 weeks to make shipment.

All Shutters Made 1½ Inches Thick

PRICES OF SHUTTERS NO. 10-Z-693

Size of Opening Ft. In.	Price Per Pair	Shipping Weight	Size of Opening Ft. In.	Price Per Pair	Shipping Weight
2-0½ x 3-11½..	\$3.02	15	2-8½ x 5-3½..	\$4.28	25 lbs.
2-4½ x 4-7½..	3.62	18	2-8½ x 5-7½..	4.54	26 lbs.
2-4½ x 5-3½..	4.14	20	2-8½ x 5-11½..	4.80	28 lbs.
2-4½ x 5-7½..	4.38	22	2-10½ x 5-7½..	4.62	26 lbs.
2-6½ x 5-3½..	4.21	22	2-10½ x 5-11½..	4.88	28 lbs.
2-6½ x 5-7½..	4.46	24	3-0½ x 5-11½..	5.41	30 lbs.

For sizes not listed, allow price of next larger size

Dashing, Slash Grain Douglas Fir Trim

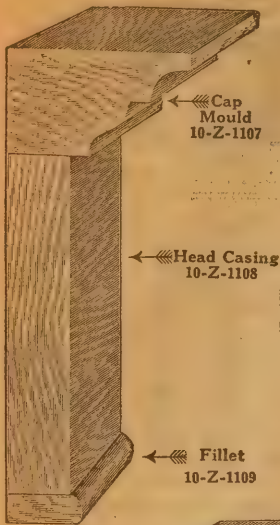
Fir Is King—The Continent's Last Stand

When the Northern White Pine Forests became depleted "Westward-Ho" became the watchword, till now the famous Oregon and Washington Douglas Fir Forests are truly the "Continent's Last Stand."

Different sections of the Pacific Coast produce different species, among which Douglas Fir takes first rank. And since it comes under the heading of Soft Wood it makes also a fine lumber for enamel finish.

Very Susceptible to Imitative Treatment

By an ingenious method of combining inexpensive ingredients, the modern chemist produces Rubies and other precious jewels in perfect imitation of the genuine and so may any one, by the use of our various oils and stains, transform the economical and inimitable Douglas Fir finish into an almost exact imitation of higher priced woods such as Rotary Cut Red Oak, Curly Red Birch, Mahogany, Cherry, Rosewood, Fumed and Mission Oak. In fact, any variety of shades almost without limit. And the softer the color, the truer it harmonizes. No other low priced wood lends itself so admirably for this purpose.

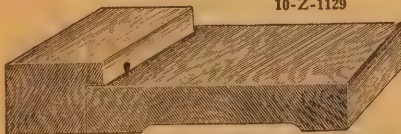


3 Member Cap

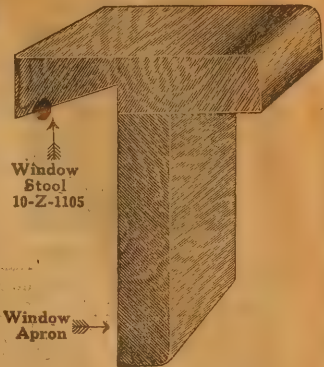


Chair Rail
10-Z-1112

10-Z-1129

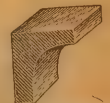


Mission Casing and Back Band Mould

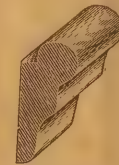


Window Stool
10-Z-1105

Window Apron



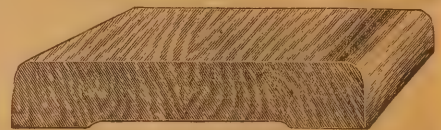
Cove Mould



Picture Mould
10-Z-1110



Window and Door Stop



Round Edge Casing

PRICES OF FIR TRIM

All prices per lineal feet. Order by number and name

Fir Casings
Back Band Mould priced separately

Number	Name	Size	Price	Weight per 100 Lin. Ft.
10-Z-1125	Round Edge Casing..	$\frac{3}{4}$ x $4\frac{1}{4}$	\$4.50	70
10-Z-1126	Round Edge Casing..	$\frac{3}{4}$ x $4\frac{3}{4}$	5.40	75
10-Z-1127	Mission Casing.....	$\frac{3}{4}$ x $3\frac{1}{2}$	3.78	60
10-Z-1128	Mission Casing.....	$\frac{3}{4}$ x $4\frac{1}{4}$	4.50	70
10-Z-1129	Back Band Mould...	$1\frac{1}{8}$ x $1\frac{1}{8}$	2.16	30

No Base Blocks are needed with Back Band Casing

Fir Base and Mouldings

Number	Name	Size	Price	Weight per 100 Lin. Ft.
10-Z-1101	Moulded Base.....	$\frac{3}{4}$ x $7\frac{1}{4}$	\$7.20	125
10-Z-1102	Main Base.....	$\frac{3}{4}$ x $7\frac{1}{4}$	7.20	125
10-Z-1104	Base Shoe.....	$\frac{1}{2}$ x $\frac{3}{8}$	.72	12
10-Z-1105	Window Stool.....	$1\frac{1}{8}$ x $3\frac{3}{4}$	5.94	100
10-Z-1106	Window Apron.....	$\frac{3}{4}$ x $3\frac{3}{8}$	3.78	65
10-Z-1107	Cap Mould.....	$1\frac{1}{8}$ x $2\frac{1}{4}$	3.74	60
10-Z-1108	Head Casing.....	$\frac{3}{4}$ x $4\frac{1}{2}$	4.71	80
10-Z-1109	Fillet Mould.....	$\frac{1}{2}$ x $1\frac{1}{8}$	1.20	16
10-Z-1110	Picture Mould.....	$\frac{3}{4}$ x $1\frac{5}{8}$	1.80	30
10-Z-1111	Cove Mould.....	$\frac{3}{8}$ x $\frac{7}{8}$	.72	15
10-Z-1112	Chair Rail.....	$\frac{2}{2}$ x $3\frac{1}{2}$	3.78	50
10-Z-1113	Window Stop.....	$\frac{3}{8}$ x $1\frac{1}{8}$	.99	18
10-Z-1114	Door Stop.....	$\frac{3}{8}$ x $1\frac{1}{4}$	1.80	25

Fir Base Blocks

$\frac{1}{8}$ -inch Thick. Order by Number.

Number	Width	Length	Price Each
10-Z-1130	$4\frac{1}{2}$ inches	10 inches	\$0.10
10-Z-1131	5 inches	10 inches	.10

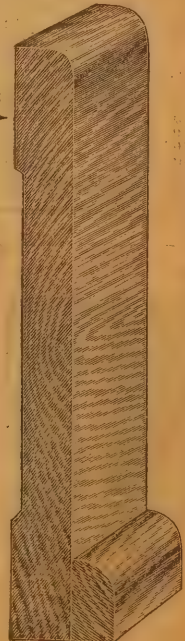


Moulded Base
10-Z-1101



Base Block
10-Z-1130
10-Z-1131

Main Base
10-Z-1102



Base Shoe
10-Z-1104
2 Member Base

Modern Designs in Casing and Base Boards

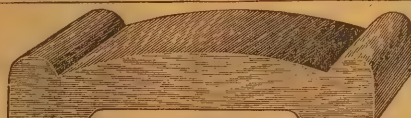


ROUND EDGE CASING



O. G. CASING

Catalog Number	Size, Inches	Price per 100 Lineal Feet		Weight per 100 Lin. Ft.	Catalog Number	Size, Inches	Price per 100 Lineal Feet		Weight per 100 Lin. Ft.
		Yellow Pine	Oak				Yellow Pine	Oak	
10-Z-8308....	$\frac{3}{4}$ x 3 $\frac{3}{4}$	\$3.15	\$6.30	80	10-Z-8384....	$\frac{3}{4}$ x 4 $\frac{1}{4}$	\$3.75	\$7.50	90
10-Z-8309....	$\frac{3}{4}$ x 4 $\frac{1}{4}$	3.75	7.50	90	10-Z-8385....	$\frac{3}{4}$ x 5 $\frac{1}{4}$	4.50	9.00	110
10-Z-8310....	$\frac{3}{4}$ x 4 $\frac{3}{4}$	4.50	9.00	95					
10-Z-8311 $\frac{1}{2}$...	$\frac{3}{4}$ x 5 $\frac{3}{4}$	4.90	9.75	120					



OVALO CASING



MISSION CASING

Catalog Number	Size, Inches	Price per 100 Lineal Feet		Weight per 100 Lin. Ft.	Catalog Number	Size, Inches	Price per 100 Lineal Feet		Weight per 100 Lin. Ft.
		Yellow Pine	Oak				Yellow Pine	Oak	
10-Z-8341....	$\frac{3}{4}$ x 4 $\frac{1}{4}$	\$3.75	\$7.50	90	10-Z-1000....	$\frac{3}{4}$ x 3 $\frac{1}{2}$	\$3.15	\$6.30	80
10-Z-8342....	$\frac{3}{4}$ x 4 $\frac{3}{4}$	4.50	9.00	95	10-Z-1001....	$\frac{3}{4}$ x 4 $\frac{1}{4}$	3.75	7.50	90
					10-Z-1002....	1 $\frac{1}{8}$ x 1 $\frac{1}{8}$	1.75	3.45	35

On this and the following pages we illustrate, describe and name extremely low prices on high grade mouldings. The designs illustrated we have found to be the most popular and are used in all modern homes of the present day.

All our mouldings are manufactured from the finest selected woods for oil finish, stain, paint or enamel. The mouldings are run on low speed machines which produce an excellent smooth finish and are kept clean and bright in our mammoth warehouse.

All our moulding is sold in random lengths 8 feet to 16 feet, specified lengths 10% net extra.

Remember that we can furnish special designs made to order. Write us for prices.



3-Member Base



10-Z-8385, 10-Z-8386—O. G. Base



10-Z-8426—Molded Base



10-Z-1003—Round Edge Base

Catalog Number	Size, Inches	Price per 100 Lineal Feet		Weight per 100 Lin. Ft.	Catalog Number	Size, Inches	Price per 100 Lineal Feet		Weight per 100 Lin. Ft.
		Yellow Pine	Oak				Yellow Pine	Oak	
10-Z-8422....	$\frac{1}{2}$ x $\frac{3}{4}$	\$0.75	\$ 1.50	15	10-Z-8385....	$\frac{3}{4}$ x 5 $\frac{1}{4}$	\$4.50	\$ 9.00	120
10-Z-8420....	$\frac{3}{4}$ x 2 $\frac{1}{4}$	2.10	4.15	55	10-Z-8386....	$\frac{3}{4}$ x 7 $\frac{1}{4}$	6.00	12.00	160
10-Z-8421....	$\frac{3}{4}$ x 7 $\frac{1}{4}$	6.00	12.00	160	10-Z-8426....	$\frac{3}{4}$ x 7 $\frac{1}{4}$	6.00	12.00	160
					10-Z-1003....	$\frac{3}{4}$ x 7 $\frac{1}{4}$	6.00	12.00	160

Mouldings for an Elegant Interior Finish

3-Member Head Trim

Prices per 100 Lineal Feet

	Each Member Priced Separately	Size	Yellow Pine	Oak	Weight per 100 lin. ft.
Cap Mould	10-Z-8396	1 1/2 x 2 1/4	\$3.12	\$6.20	65
Head Casing	10-Z-8394	3/4 x 4 1/2	3.95	7.88	95
Fillet	10-Z-8395	7/8 x 1	.30	1.50	20

4-Member Head Trim

Prices per 100 Lineal Feet

	Each Member Priced Separately	Size	Yellow Pine	Oak	Weight per 100 lin. ft.
Cap Mould	10-Z-2110	3/4 x 2	\$1.70	\$3.38	20
Mission Mould	10-Z-2111	5/8 x 3/4	.75	1.50	12
Head Casing	10-Z-2112	3/4 x 4 1/2	3.95	7.88	90
Fillet	10-Z-2113	7/8 x 1	.80	1.50	20

10-Z-8394

10-Z-8395

3-Member Head Trim

4-Member Head Trim



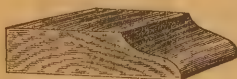
CHAIR RAIL
10-Z-8496

Kind of Wood	Size	Price per 100 lin. ft.	Weight per 100 lin. ft.
Yellow Pine...	1/2 x 3 1/2	\$3.15	40
Oak	1/2 x 3 1/2	6.30	50



CLOSET HOOK STRIPS
10-Z-8234

Kind of Wood	Size	Price per 100 lin. ft.	Weight per 100 lin. ft.
Yellow Pine only	5/8 x 2 1/2	\$2.10	35



O. G. DOOR AND WINDOW STOPS
Prices per 100 Lineal Feet

Lot No.	Size	Yellow Pine	Oak	Wt. per 100 lin. ft.
10-Z-8083.....	3/4" x 1 1/4"	\$0.75	\$1.50	20
10-Z-8084.....	3/4" x 1 1/2"	.85	1.65	25
10-Z-8085.....	3/4" x 1 3/4"	1.05	2.10	30
10-Z-8086.....	3/4" x 1 7/8"	1.15	2.25	32
10-Z-8095.....	3/4" x 1 3/4"	1.90	3.00	30
10-Z-8095.....	3/4" x 2 1/4"	1.90	3.75	40



**Window Stool
and Apron**

WINDOW STOOL
10-Z-8267

Prices per 100 Lineal Feet

Kind of Wood	Size	Price per 100 lin. ft.	Weight per 100 lin. ft.
Yellow Pine..	1 1/2 x 3 3/4	\$4.95	110
Oak	1 1/2 x 3 3/4	9.90	125

WINDOW APRON
10-Z-8379

Price per 100 Lineal Feet

Kind of Wood	Size	Price per 100 lin. ft.	Weight per 100 lin. ft.
Yellow Pine..	3/4 x 3 3/4	\$3.35	60
Oak	3/4 x 3 3/4	6.75	85



**ROUND EDGE DOOR AND WINDOW
STOPS**

Prices Per 100 Lineal Feet

Catalog Number	Size	Yellow Pine	Oak	Weight per 100 lin. ft.
10-Z-8541	1/2 x 1 1/2	\$1.13	\$2.25	22
10-Z-8542	1/2 x 1 5/8	1.50	3.00	30

PICTURE MOLD

10-Z-8264

Size 3/4 x 1 1/4

Prices per 100 Lineal Feet

Yellow Pine	Oak	Wt., Lbs.
\$1.50	\$3.00	32



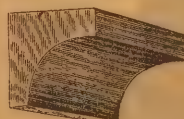
WAINSCOTING CAP

10-Z-8228

Suitable for 1/2" and
5/8" Wainscoting

Price per 100 Lin. Ft.

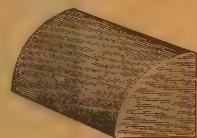
Size	Yellow Pine	Wt., Lbs.
3/4" x 2"	\$1.90	32



COVE OR SCOTIA
10-Z-8060

Size, 3/4 x 3/4
Price per 100 Lin. Ft.

Yellow Pine	Oak	Wt., Lbs.
\$0.75	\$1.50	20



QUARTER ROUND

10-Z-8065

Price per 100 Lin. Ft.

Wood	Size	Price	Wt., Lbs.
Yellow Pine	1" x 1"	\$0.75	15
Fir....	1" x 1"	.85	15
Oak..	1" x 1"	1.50	20

10-Z-8061

Size, 3/4" x 1 1/2"

Yellow Pine	Oak	Wt., Lbs.
\$0.95	\$1.88	20

No Waste Window and Door Trim

CAREFULLY CUT—WRAPPED AND BUNDLED

On this page we show some very popular designs of Harris Standard Door and Window Trim. The many different styles of trim pictured on these pages, give you the opportunity to choose just what you want. The mouldings used in making up these sets are selected from our stock, and are in every respect first class mouldings. They are absolutely clear, smooth machine run and will produce an excellent smooth finish, because we manufacture our trim from no other kind but strictly clear, kiln dried lumber. There is no waste when you order your trim as shown on this page, neither is there any chance of mistake, and it saves time and expense. We cut all parts to the proper lengths, allowing liberally for trimming and fitting on the job. Inside doors require two sets of trim, whereas, outside doors and windows require only one set of trim.

All our trim is carefully packed, bundled and wrapped to insure reaching you in the best condition.

IF THE SIZE YOU REQUIRE IS NOT LISTED BELOW, ALLOW THE PRICE OF THE NEXT LARGER SIZE.

PRICES

BACK BAND DOOR TRIM

Any size door opening up to and including:		Each set consists of $\frac{3}{4}$ x3 $\frac{1}{2}$ in. Casing No. 1000, 1 $\frac{1}{2}$ x1 $\frac{1}{2}$ Back Band No. 1002 and O. G. Stops.		
Width, Ft. In.	Height, Ft. In.	10-Z-1007 Yel. Pine	10-Z-1008 Clear Fir	10-Z-1009 Red Oak
2-8	x 6-8	\$1.12	\$1.31	\$2.52
3-0	x 7-0	1.20	1.35	2.58
5-0	x 7-0	1.43	1.47	2.81
8-0	x 8-0	1.76	1.72	3.24
9-0	x 9-0	1.82	1.80	3.44

BACK BAND WINDOW TRIM

Any size window opening up to and including:		Each set consists of $\frac{3}{4}$ x3 $\frac{1}{2}$ in. Casing No. 1000, 1 $\frac{1}{2}$ x1 $\frac{1}{2}$ Back Band No. 1002, Stool No. 8267, Apron No. 8379 and O. G. Stops.		
Width, Ft. In.	Height, Ft. In.	10-Z-1013 Yel. Pine	10-Z-1014 Clear Fir	10-Z-1015 Red Oak
2-4 $\frac{1}{2}$	x 3-10	\$1.20	\$1.32	\$2.40
2-6 $\frac{1}{2}$	x 4-6	1.23	1.42	2.56
2-8 $\frac{1}{2}$	x 5-2	1.35	1.56	2.96
2-10 $\frac{1}{2}$	x 5-6	1.39	1.68	3.24
3-8 $\frac{1}{2}$	x 6-2	1.64	1.70	3.52

MISSION DOOR TRIM

Any size door opening up to and including:		Each set consists of $\frac{3}{4}$ x3 $\frac{1}{2}$ in. Casing No. 1000, $\frac{3}{4}$ x4 $\frac{1}{2}$ Head Casing, No. 144 Base Blocks and O. G. Stops.		
Width, Ft. In.	Height, Ft. In.	10-Z-1903 Yel. Pine	10-Z-1909 Clear Fir	10-Z-1910 Red Oak
2-8	x 6-8	\$1.08	\$1.15	\$2.10
3-0	x 7-0	1.13	1.20	2.16
5-0	x 7-0	1.21	1.30	2.42
8-0	x 8-0	1.56	1.64	2.88
9-0	x 9-0	1.67	1.76	3.20

MISSION WINDOW TRIM

Any size window opening up to and including:		Each set consists of $\frac{3}{4}$ x3 $\frac{1}{2}$ in. Casing No. 1000, $\frac{3}{4}$ x4 $\frac{1}{2}$ Casing, No. 8267 Stool, No. 8379 Apron and O. G. Stops.		
Width, Ft. In.	Height, Ft. In.	10-Z-1912 Yel. Pine	10-Z-1913 Clear Fir	10-Z-1914 Red Oak
2-4 $\frac{1}{2}$	x 3-10	\$1.16	\$1.21	\$2.13
2-6 $\frac{1}{2}$	x 4-6	1.23	1.32	2.30
2-8 $\frac{1}{2}$	x 5-2	1.33	1.38	2.52
2-10 $\frac{1}{2}$	x 5-6	1.38	1.50	2.83
3-8 $\frac{1}{2}$	x 6-2	1.60	1.64	2.96

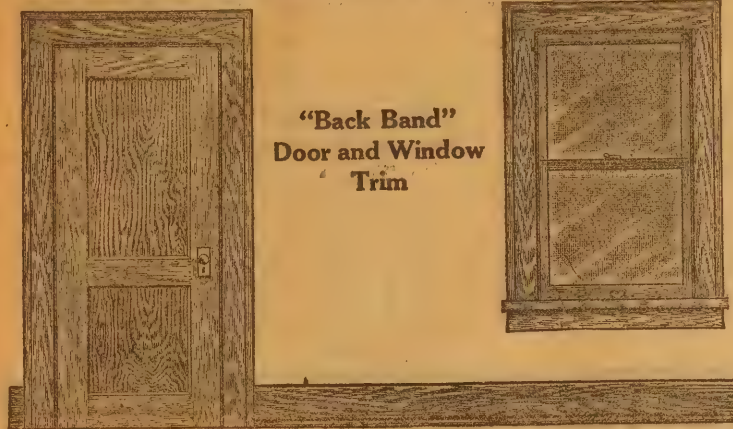
ROUND EDGE MITERED DOOR TRIM

Any size door opening up to and including:		Each set consists of $\frac{3}{4}$ x4 $\frac{1}{2}$ Round Edge Casing No. 8309, No. 144 Base Blocks and O. G. Stops.		
Width, Ft. In.	Height, Ft. In.	10-Z-2033 Yel. Pine	10-Z-2034 Clear Fir	10-Z-2035 Red Oak
2-8	x 6-8	\$1.07	\$1.22	\$2.09
3-0	x 7-0	1.12	1.30	2.16
5-0	x 7-0	1.20	1.42	2.44
8-0	x 8-0	1.60	1.48	2.88
9-0	x 9-0	1.64	1.58	3.16

ROUND EDGE MITERED WINDOW TRIM

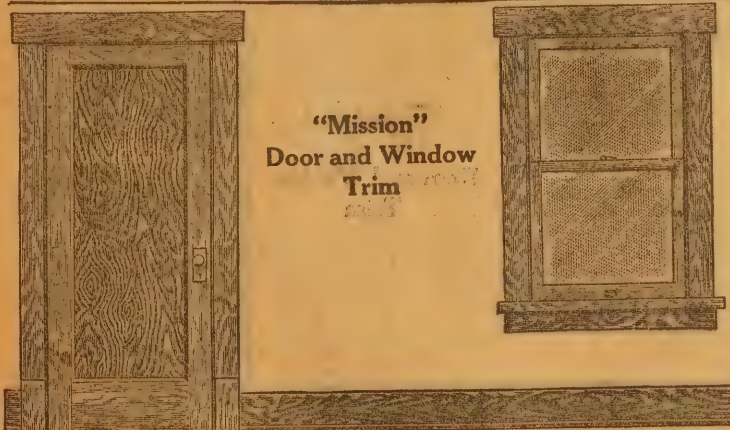
Any size window opening up to and including:		Each set consists of $\frac{3}{4}$ x4 $\frac{1}{2}$ Round Edge Casing No. 8309, No. 8267 Stool, No. 8379 Apron and O. G. Stops.		
Width, Ft. In.	Height, Ft. In.	10-Z-2042 Yel. Pine	10-Z-2043 Clear Fir	10-Z-2044 Red Oak
2-4 $\frac{1}{2}$	x 3-10	\$1.16	\$1.30	\$2.12
2-6 $\frac{1}{2}$	x 4-6	1.27	1.31	2.29
2-8 $\frac{1}{2}$	x 5-2	1.32	1.40	2.51
2-10 $\frac{1}{2}$	x 5-6	1.38	1.47	2.82
3-8 $\frac{1}{2}$	x 6-2	1.58	1.53	2.96

**"Back Band"
Door and Window
Trim**



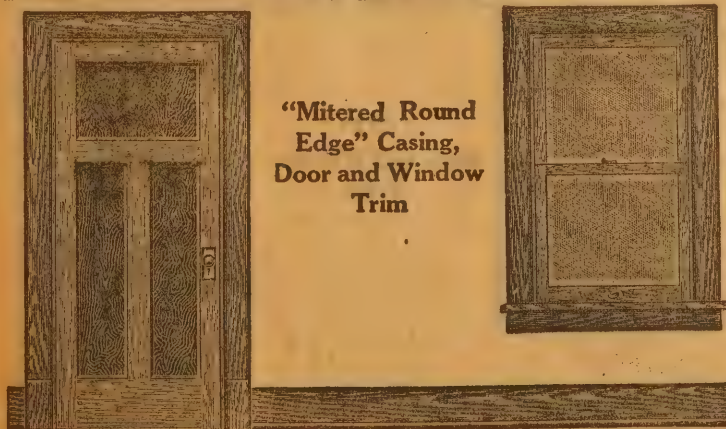
The Back Band Trim shown above is one of the styles of handsome trim used in our Harris Homes—easy for the carpenter to apply and easy for the housewife to keep clean.

**"Mission"
Door and Window
Trim**



To those who fancy a plain trim, we recommend our Mission Style. When used with our Seattle or Olympia Door, it is considered a harmonizing design.

**"Mitered Round
Edge" Casing,
Door and Window
Trim**



Our Mitered Round Edge Trim, like our Back Band Trim, is of the sanitary style and when properly finished or stained, it makes a very beautiful interior trim.

No Waste Window and Door Trim

CAREFULLY CUT—WRAPPED AND BUNDLED

The interior trim illustrated on this page is of the very same high grade material and workmanship as described on the opposite page. Each style is modern, up-to-date, easy for the carpenter to apply, and, above all, selected to harmonize with the general appearance of any home. Remember, there is no waste when you order your trim as shown on this page, neither is there any chance of mistake, and it saves time and expense. We cut all parts to proper lengths, allowing liberally for trimming and fitting on the job. We carry Door and Window Trim in Oak, Yellow Pine and Clear Fir in designs shown on this and the opposite page. Inside doors require two sets of trim, whereas outside doors and windows require only one set of trim.

All our trim is carefully packed, bundled and wrapped to insure reaching you in the best condition.

IF THE SIZE YOU REQUIRE IS NOT LISTED BELOW, ALLOW THE PRICE OF THE NEXT LARGER SIZE.

PRICES

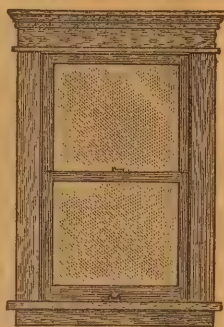
THREE MEMBER CAP DOOR TRIM

Any size door opening up to and including		Each set consists of $\frac{3}{4}$ x $\frac{1}{4}$ inch Casing No. 8309, Three Member Cap, No. 144 Base Blocks and O. G. Stops.		
Width Ft. In.	Height Ft. In.	10-Z-914 Yel. Pine	10-Z-925 Clear Fir	10-Z-916 Red Oak
2-8 x 6-8		\$1.39	\$1.28	\$2.69
3-0 x 7-0		1.47	1.36	2.88
5-0 x 7-0		1.72	1.64	3.36
8-0 x 8-0		1.96	1.80	3.92
9-0 x 9-0		2.16	2.28	4.40

THREE MEMBER CAP WINDOW TRIM

Any size window opening up to and including		Each set consists of $\frac{3}{4}$ x $\frac{1}{4}$ inch Casing No. 8309, Three Member Cap, No. 8267 Stool, No. 8379 Apron and O. G. Stops.		
Width Ft. In.	Height Ft. In.	10-Z-988 Yel. Pine	10-Z-982 Clear Fir	10-Z-990 Red Oak
2-4 $\frac{1}{2}$ x 3-10		\$1.45	\$1.33	\$2.76
2-6 $\frac{1}{2}$ x 4-6		1.60	1.46	3.00
2-8 $\frac{1}{2}$ x 5-2		1.65	1.55	3.24
2-10 $\frac{1}{2}$ x 5-6		1.74	1.64	3.40
3-8 $\frac{1}{2}$ x 6-2		1.97	1.82	3.84

If the caps are wanted nailed together ready to nail in place, add 40c to the above price.



**"3' Member Cap"
Door and Window
Trim**



Our Three Member Cap Trim illustrated is a standard style used in many homes today. Although it is not as sanitary as our Back Band Trim, it is always impressive, regardless of what style door it is used with.

CHAMFERED HEAD DOOR TRIM

Any size door opening up to and including		Each set consists of $\frac{3}{4}$ x $\frac{3}{4}$ inch Square Edge Casing No. 1000, $\frac{3}{4}$ x $\frac{5}{8}$ Chamfered Head, No. 144 Base Blocks and O. G. Stops.		
Width Ft. In.	Height Ft. In.	10-Z-2234 Yel. Pine	10-Z-2235 Clear Fir	10-Z-2236 Red Oak
2-8 x 6-8		\$1.31	\$1.29	\$2.64
3-0 x 7-0		1.38	1.34	2.80
5-0 x 7-0		1.53	1.50	3.18
8-0 x 8-0		1.72	1.68	3.84
9-0 x 9-0		1.92	1.84	4.20



**"Chamfered
Head"
Door and Window
Trim**



It is hard to choose a more attractive design than our Chamfered Head Interior Trim. Our Everett Door matches this trim very nicely. We recommend this trim for high grade homes.

CHAMFERED HEAD WINDOW TRIM

Any size window opening up to and including		Each set consists of $\frac{3}{4}$ x $\frac{3}{4}$ inch Square Edge Casing No. 1000; $\frac{3}{4}$ x $\frac{5}{8}$ Chamfered Head, No. 8267 Stool, No. 8379 Apron and O. G. Stops.		
Width Ft. In.	Height Ft. In.	10-Z-3940 Yel. Pine	10-Z-3941 Clear Fir	10-Z-3942 Red Oak
2-4 $\frac{1}{2}$ x 3-10		\$1.34	\$1.26	\$2.70
2-6 $\frac{1}{2}$ x 4-6		1.42	1.34	2.90
2-8 $\frac{1}{2}$ x 5-2		1.52	1.42	3.07
2-10 $\frac{1}{2}$ x 5-6		1.70	1.64	3.44
3-8 $\frac{1}{2}$ x 6-2		1.76	1.70	3.68

O. G. CASING DOOR TRIM

Any size door opening up to and including		Each set consists of $\frac{3}{4}$ x $\frac{1}{4}$ inch O. G. Casing No. 8384, $\frac{3}{4}$ x $\frac{1}{2}$ inch O. G. Stops.	
Width Ft. In.	Height Ft. In.	10-Z-975 Yellow Pine	10-Z-981 Clear Fir
2-8 x 6-8		\$0.95	\$0.93
3-0 x 7-0		.99	.97
5-0 x 7-0		1.06	1.02
8-0 x 8-0		1.12	1.10
9-0 x 9-0		1.28	1.22



**"OG"
Door and Window
Trim**



Our O. G. Trim is a simple design used most where economy and practicability is the watchword. When carefully fitted and finished, makes a handsome trim.

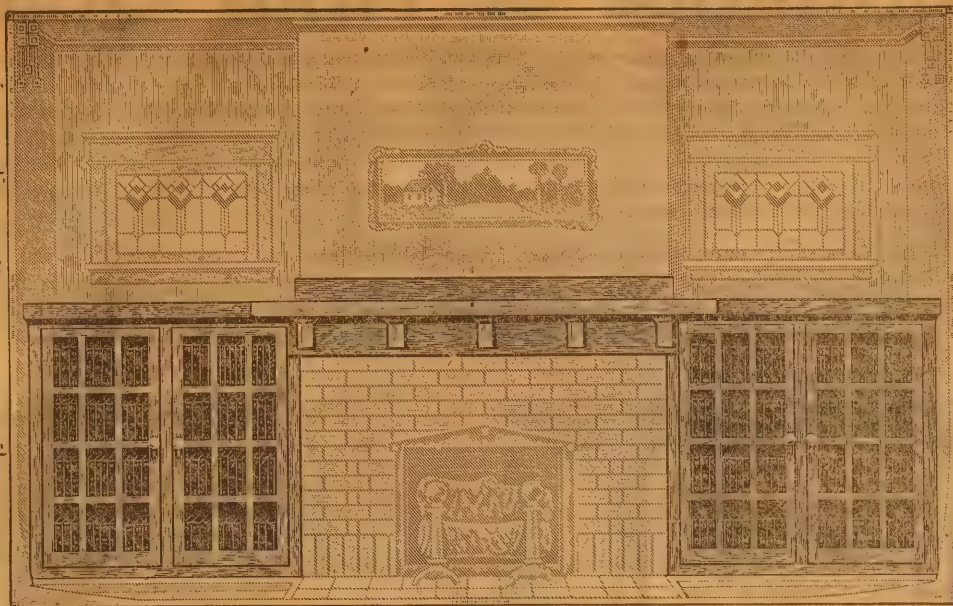
O. G. CASING WINDOW TRIM

Any size window opening up to and including		Each set consists of $\frac{3}{4}$ x $\frac{1}{4}$ inch O. G. Casing No. 8384, No. 8267 Stool, No. 8379 Apron and O. G. Stops.	
Width Ft. In.	Height Ft. In.	10-Z-977 Yellow Pine	10-Z-978 Clear Fir
2-4 $\frac{1}{2}$ x 3-10		\$1.18	\$1.14
2-6 $\frac{1}{2}$ x 4-6		1.26	1.24
2-8 $\frac{1}{2}$ x 5-2		1.31	1.28
2-10 $\frac{1}{2}$ x 5-6		1.46	1.42
3-8 $\frac{1}{2}$ x 6-2		1.58	1.52

Combination Built-In Book Case and Mantel Shelf

\$66⁵⁰

Clear
Yellow
Pine



\$68⁵⁰

Red Oak
or
Birch

"COMFORT" No. 10-Z-2105

The fast growing demand for Built-in Furniture around the Living Room Fireplace prompted us to design our "Comfort" Combination Bookcases and Mantel Shelf of modern architecture.

The Bookcases are built-in and out of the way; the long mantel shelf stretches across the room, forming an appropriate place on which to set photographs, vases, etc.

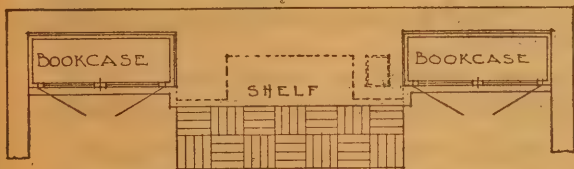
The Doors in the Bookcases are divided with wood bars and glazed with clear double strength glass. The inside depth of the bookcases is 10 inches, while the height is 54 inches. The width of each bookcase depends upon the size of the room and the width of your fireplace, ordinarily being about 36 inches to 42 inches for an average sized room.

The Mantel Shelf is 2 1/4 inches thick and projects over the bookcases and mantel with neat brackets underneath as shown. The bookcases are equipped with shelves.

When ordering give width of entire room; width, depth and height of fireplace.

Sizes and Prices.

Price Consisting of two Bookcases and one Mantel Shelf, as shown in cut and floor plan.



FLOOR PLAN OF BOOKCASE & MANTEL SHELF

Please bear in mind that the low prices quoted below cover the woodwork only and do not cover any tile, brick, hardware or finishing of any kind.

COMFORT
No. 10-Z-2105
2 Bookcases and Mantel
Shelf for Room.

Price, made of
Clear Yellow Pine,
Glazed Clear
Double Strength
Glass.

Price, made of Red
Oak or Unselected
Birch, Glazed Clear
Double Strength
Glass.

10 Feet Wide
12 Feet Wide
14 Feet Wide
16 Feet Wide

\$66.50
68.75
70.50
72.40

\$68.50
70.75
72.50
74.50

Shipping Weight 290 Pounds

Writing Desk AND Bookcase Colonnade

Can you imagine a more handy, attractive or convenient colonnade than this one? See how compact it is—yet it has two large roomy bookcases and in it a spacious writing desk. Not only will it make your rooms more attractive, but also will it place a higher selling mark on your home. This colonnade is one of our latest modern designs and a great improvement over past models. Add this big improvement to your home.

SPECIFICATIONS: Pedestals are 2' 6" wide by 4' 2" high. Inside depth in the clear is 10". Back of reverse side of pedestals is neatly paneled, other ends also paneled. Made for opening up to 8-0 high.

COLUMNS are 7" square, 3' 10" long and taper. **DOORS** glazed clear glass, set in best glazier's metal.

Is furnished in the White (not stained or varnished). Casings, cap trim, jambs and hardware not included.

PRICES

No. 10-Z-1925 Clear Yellow Pine.....\$61.75
No. 10-Z-1926 Clear Red Oak..... 67.50

SHIPPING WEIGHT 250 POUNDS



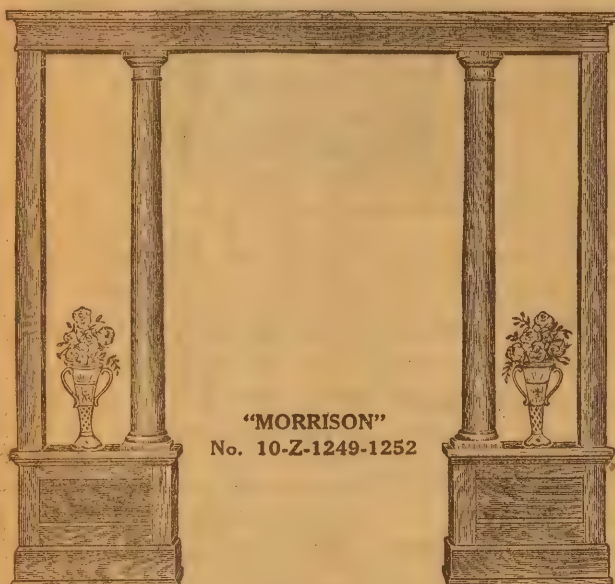
This beautiful
Writing Desk and
Bookcase Colonnade
in Clear Yellow Pine

\$61⁷⁵

Colonnades of High Quality

On this page and the following pages we try and put before you some of the very latest designs of Colonnades used at the present time. Any of these colonnades will add a tone of refinement and luxury to your home. They can be used in any width of room where openings can be made 7 feet and wider. The very best and most modern buildings of today are considered incomplete unless furnished with stylish and up-to-date colonnades; in fact, any modern home should have at least one of these openings. We manufacture these colonnades from strictly kiln dried Oak, Yellow Pine or Birch, which is carefully selected for this particular class of work.

Our prices in every instance are for the wood named in the white, that is, just as it leaves the wood-workers' hands, not filled or varnished in any way. Should you want any of these colonnades finished in oil or varnished, we can do so at 25 per cent extra. Prices shown do not include base board, casing or cap trim. This should be ordered separately and should match up the balance of the trim in your home.



"MORRISON"

No. 10-Z-1249-1252

The "Morrison" Colonnade

The Morrison Colonnade is made of the very best selected woods and the workmanship is excellent. The pedestals project 2 feet from the jamb, they are 2 feet high and about 11½ inches on face, made to fit over a 5½ inch jamb. The columns are 6 inches in diameter and have a plain turned wood cap and base. The room base can be used around the pedestal as shown in illustration.

PRICES

No. 10-Z-1249. Morrison Colonnade, 9 feet wide by 9 feet high or smaller, furnished in Clear Yellow Pine in the natural wood (not oiled or varnished).

Price **\$22.80**

No. 10-Z-1252. Morrison Colonnade, 9 feet wide by 9 feet high or smaller, furnished in Oak or Birch in the natural wood (not oiled or varnished).

Price **\$30.10**

We can furnish this same colonnade with composition caps at \$5.60 extra.

NOTE: FOR EACH ADDITIONAL FOOT, EITHER IN WIDTH OR HEIGHT, ADD \$2.00

Shipping Weight Approximately 200 Pounds

The "Kenmore" Colonnade

The Kenmore Colonnade is a modern colonnade which will add big improvement to any home. The pedestals project 2 feet from the jamb; they are 2 feet high and about 11½ inches on face, made to fit over a 5½ inch jamb. The columns are 6 inches in diameter and have a plain wood cap and base. The room base can be used around the pedestals as shown in illustration. Prices shown do not include base board, casing or cap trim. This should be ordered separately and should match up the balance of trim in your home.

PRICES

No. 10-Z-1293. Kenmore Colonnade 9 feet wide by 9 feet high or smaller, furnished in Clear Yellow Pine in the natural wood (not oiled or varnished).

Price **\$22.25**

No. 10-Z-1294. Kenmore Colonnade 9 feet wide by 9 feet high or smaller, furnished in Oak or Birch in the natural wood (not oiled or varnished).

Price **\$29.20**

NOTE: FOR EACH ADDITIONAL FOOT, EITHER IN WIDTH OR HEIGHT, ADD \$2.00.

Shipping Weight Approximately 200 Pounds

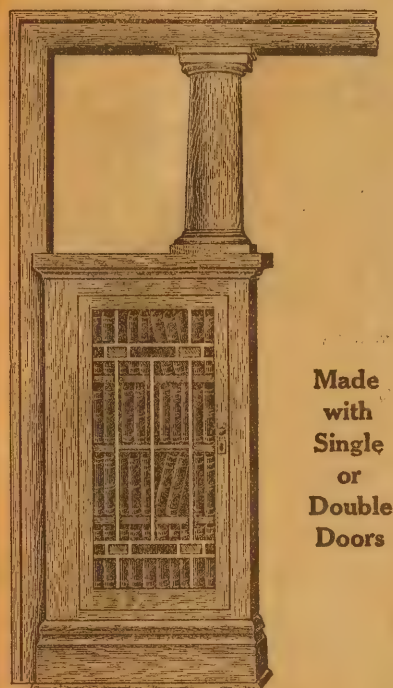


"KENMORE"

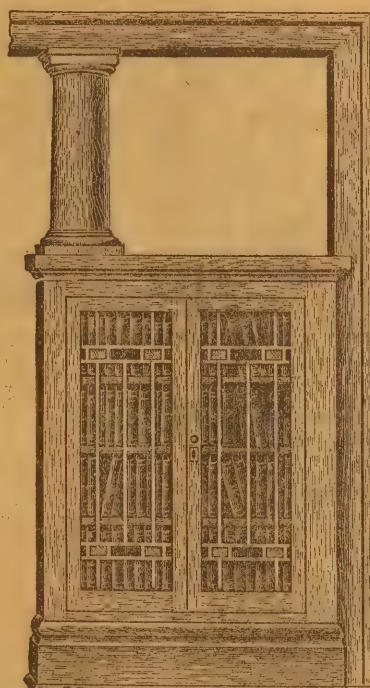
No. 10-Z-1293

Modern Artistic Bookcase Colonnades

These elegant bookcase colonnades have been designed to embody a splendid ornamental effect with a feature of utility that will appeal to you. Ordinarily colonnades are intended to serve as a wall to divide floor space in rooms—a doorless portal of exceptional width to give the impression of area which one room borrows from another. These two designs give you every advantage of the ordinary colonnade and in addition they will serve as a piece of useful furniture as well.



10-Z-2101. Single Door



10-Z-2102. Double Door.

Made
with
Single
or
Double
Doors

"Eleanor" Colonnade \$59²⁵

Made with Leaded Glass Doors

This impressive colonnade is made complete with single or double artistic leaded glass bookcase doors. Finished in figured clear yellow pine, clear figured solid oak or birch. The material used is the best—every piece selected for its grain and color. Finest workmanship, perfectly joined and fitted throughout. The doors are properly constructed to prevent sagging or binding. The columns are 7½ in. in diameter and have a turned wood cap and base. The reverse side of the bookcase compartment facing the dining room will harmonize very nicely with new, modern design of wall panelling, finished with two vertical veneered panels the same height as the doors.

10-Z-2101. "Eleanor" colonnade with single door pedestals to be used in an opening measuring not less than 8 ft. wide and up to 9 ft. high. Pedestals measure over-all 2 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:
Clear yellow pine (not oiled or varnished) with leaded glass doors

Price..... \$59.25

Clear oak or birch (not oiled or varnished) with leaded glass doors.

Price..... \$62.05

Average shipping weight, 300 lbs.
10-Z-2102. "Eleanor" colonnade with double door pedestals to be used in an opening measuring not less than 9 ft. 6 in. wide and up to 9 ft. high. Pedestals measure over-all 3 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:
Clear yellow pine (not oiled or varnished) with leaded glass doors.

Price..... \$69.15

Clear oak or birch (not oiled or varnished) with leaded glass doors.

Price..... \$72.20

Average shipping weight, 350 lbs.

"Florence" Colonnade \$55⁰⁵

Made with Divided Light Doors

This striking "Craftsman" style colonnade will give your rooms a rich and trim appearance. The square columns are neither too large or too small to harmonize with the pedestals. Made complete with single or double glass doors divided in square lights with neat wood strips which carry out the massive, square, straight line effect. The pillars are 7½ in. in diameter and have plain wood caps and bases. The reverse side of the bookcase compartments which face the dining room are finished with two vertical veneered panels the same height as the doors, designed to harmonize with standard wall panellings.

10-Z-2103. "Florence" colonnade with single door pedestals to be used in an opening of any width measuring not less than 8 ft. and up to 9 ft. high. Pedestals measure over-all 2 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:
Clear yellow pine (not oiled or varnished) with glass doors.

Price..... \$55.05

Clear oak or birch (not oiled or varnished) with glass doors.

Price..... \$57.85

Average shipping weight, 300 lbs.
10-Z-2104. "Florence" colonnade with double door pedestal to be used in an opening of any width measuring not less than 9 ft. 6 in. wide and up to 9 ft. high. Pedestals measure over-all 3 ft. 4 in. wide, 4 ft. 9 in. high and 11 in. deep.

Prices not including hardware:
Clear yellow pine (not oiled or varnished) with glass doors.

Price..... \$59.85

Clear oak or birch (not oiled or varnished) with glass doors.

Price..... \$62.95

Average shipping weight, 325 lbs.



10-Z-2103. Single Door



10-Z-2104. Double Door.

Made
with
Single
or
Double
Doors

Well-Designed Buffets at Low Prices

More real solid comfort and modern convenience is derived from a well designed, strongly built, roomy buffet than any other article of furniture, no matter if such article be used for mere show or expressly required for service. For displaying China and glass ware, the buffets illustrated below present pleasing backgrounds.

Our Blackstone and Biltmore Buffets are not only convenient because of their labor-saving utility, but are permanent furniture of incomparable beauty. Both designs on this page harmonize with practically any modern interior decorations and while the cost is so reasonable, no home owner will find it prohibitive.

The material used to manufacture these buffets is carefully selected from thoroughly dried stock. A point not to be overlooked is that these designs may be used in old as well as new buildings. Of course, they are also used extensively in new apartment buildings and dwellings, in fact, most new homes are furnished with built-in furniture wherever its use is possible.

"Blackstone" Buffet

This buffet is made of either Clear Yellow Pine or Selected Oak, thoroughly kiln dried. The extreme width of this buffet is 5 feet, 6 feet or 7 feet wide, as described below. All buffets are made 5 feet 6 inches high overall and the center, which is the drawer section is 16 inches deep and the two end sections 12 inches deep. The doors are glazed with strictly clear double strength glass. Be careful to give exact correct size if you want to build it in an offset in the wall, which should not be over 12 inches deep. Note that the mirror sets back against the wall the same as on our regular sideboards.

Shipped complete as shown, ready to set in place. No hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

Prices of Blackstone Buffet with Double Strength Glass in doors, as shown, and Plain Plate Mirror, not Beveled.

Catalog No.	Sizes	Wood	Price
10-Z-713	5 ft.x5 ft. 6 in.	Yellow Pine	\$71.50
10-Z-714	6 ft.x5 ft. 6 in.	Yellow Pine	73.25
10-Z-715	7 ft.x5 ft. 6 in.	Yellow Pine	75.95
10-Z-718	5 ft.x5 ft. 6 in.	Oak or Birch	73.50
10-Z-719	6 ft.x5 ft. 6 in.	Oak or Birch	75.40
10-Z-720	7 ft.x5 ft. 6 in.	Oak or Birch	77.85

Shipping Weight, 380 Pounds

When ordering, do not fail to state catalog number, size and kind of wood wanted. Intermediate sizes take price of next larger size. If Beveled Plate Mirror is wanted instead of Plain, add \$2.00.



"Biltmore" Buffet

Our Biltmore Buffet is similar to our Blackstone Buffet except that the doors are divided by wood bars, as shown in illustration; the balance of description is the same as our Blackstone. This buffet, like all our other cabinet work, is of the very best quality and workmanship throughout.

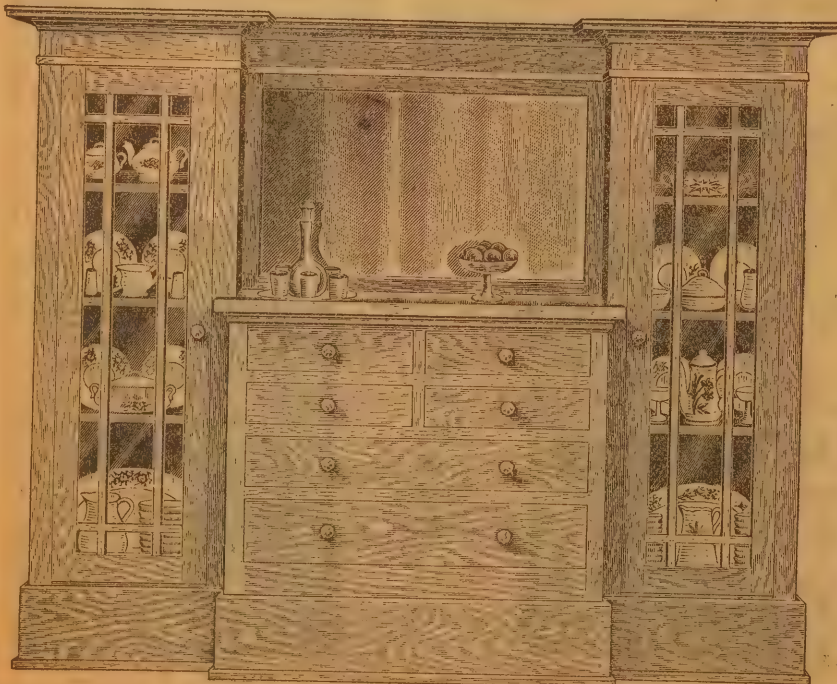
If you want a sideboard that not only does not take up too much room, but will also serve as a permanent piece of furniture, we suggest that you order one of these two shown on this page. Shipped complete as shown, ready to set in place, no hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

Prices of Biltmore Buffet with Double Strength Glass in doors, as shown, and Plain Plate Mirror, not beveled.

Catalog No.	Sizes	Wood	Price
10-Z-2114	5 ft.x5 ft. 6 in.	Yellow Pine	\$74.50
10-Z-2115	6 ft.x5 ft. 6 in.	Yellow Pine	76.25
10-Z-2116	7 ft.x5 ft. 6 in.	Yellow Pine	78.95
10-Z-2117	5 ft.x5 ft. 6 in.	Oak or Birch	76.50
10-Z-2118	6 ft.x5 ft. 6 in.	Oak or Birch	78.40
10-Z-2119	7 ft.x5 ft. 6 in.	Oak or Birch	80.85

Shipping Weight, 380 Pounds

When ordering, do not fail to state catalog number, size and kind of wood wanted. Intermediate sizes take price of next larger size. If Beveled Plate Mirror is wanted instead of Plain, add \$2.00.





"Walden"

ASTORIA BUFFET

Our Astoria is very attractive, colonial design with plenty of drawer room and two neat cupboard spaces for china and glass-ware.

Specifications: The width 6 feet and 7 feet specified below is the measurement overall, while the depth is 18 inches from front to the back. The height is 3 feet and 6 inches from floor to top of countershelf and the extreme height overall is 5 feet and 2 inches.

All buffets are shipped complete as shown, ready to set in place, no hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

PRICES

Cat. No.	Wd.	Height Overall	Dpt.	Wood	Price
10-Z-2120	6'	5' 2"	18"	Yellow Pine	\$87.50
10-Z-2121	6'	5' 2"	18"	Oak or Birch	89.50
10-Z-2122	7'	5' 2"	18"	Yellow Pine	90.75
10-Z-2123	7'	5' 2"	18"	Oak or Birch	92.50

Above prices are for "Astoria" as shown in cut, with doors glazed Leaded Crystal Glass and including Plain Plate Mirror. For prices on intermediate sizes take price of next larger size.



"Astoria"

FERNWOOD BUFFET

Our "Fernwood" Buffet was designed especially for Dining Rooms where both space and convenience is required, yet it is very attractive and will prove an ornament to any home. It can be installed in old or new homes without any alteration, as it sets out from the wall.

Specifications: The width, 6 feet and 7 feet, specified below is the measurement overall. The drawer section below the mirror is 18 inches deep, while each bookcase section is about 14 inches deep. The height is 2 feet and 10 inches from floor to the top of countershelf, and the extreme height overall is 5 feet and 2 inches.

All buffets are shipped complete as shown, ready to set in place, no hardware or finishing included. Hardware can be selected from this catalog to match your other hardware.

PRICES

Catalog No.	Width	Height Overall	Wood	Price
10-Z-2138	6 feet	5 feet 2 in.	Yellow Pine	\$79.50
10-Z-2139	6 feet	5 feet 2 in.	Oak or Birch	81.50
10-Z-2140	7 feet	5 feet 2 in.	Yellow Pine	82.75
10-Z-2141	7 feet	5 feet 2 in.	Oak or Birch	84.75

Above prices are for "Fernwood" as shown in cut with doors glazed Clear Double Strength Glass and including Bevel Plate Mirror. We can furnish this buffet with leaded glass in doors. Write for special prices. For prices on intermediate sizes, take price of next larger size.



"Fernwood"

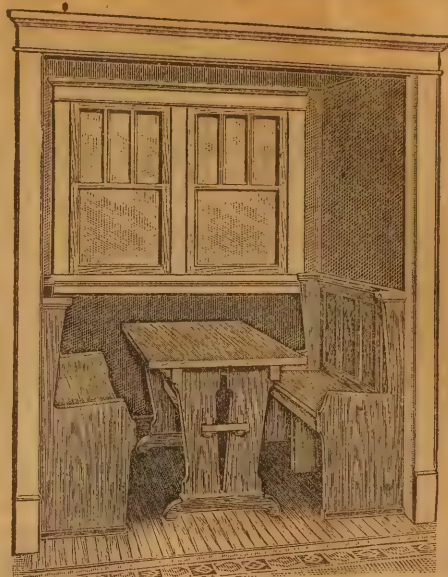
MODERN BUILT-IN CONVENIENCES

This
Linen Cabinet
for
\$26⁹⁵



Linen Cabinet

Made of
Either
Yellow Pine
or
Oak



Breakfast Alcove

Three
Pieces
for

\$56⁹⁵

Like all other articles of built-in furniture our Breakfast Alcove combines usefulness, beauty, convenience and above all attractiveness. It saves the housewife many trips to the dining room.

Price includes two seats and one table for floor space 6 feet wide by 4 feet deep. The height from floor to top of seat back is 3 feet 6 inches, height from floor to seat is 1 foot 6 inches. Seat is 1 foot 6 inches deep by 4 feet long. The table top on this Breakfast Alcove is 2 feet 8 inches wide by 4 feet long. Height from floor to top of table is 2 feet 6 inches. These measurements are just as we furnish this Alcove outfit and you will find that they are practical and correct. This alcove is made from strictly clear lumber, sand papered and ready for finish. Shipped all put together as shown. Other sizes to order. Shipping weight 200 pounds.

Here is a built-in Linen Cabinet that is needed in almost every home. It has very large drawers and ample space for linens. This linen cabinet is built up to 3 feet wide, 2 feet 6 inches deep and is made to line up with 6 feet 8 in. or 7 foot doors. Price includes drawers, drawer case, two top doors, 2 shelves and cleats, trim and jambs on which to hang doors. Shipped all ready to set in wall. Shipping weight, 240 pounds.

No. 10-Z-2145. Linen cabinet, Clear Yellow Pine (Not oiled or varnished) and no hardware included. Price..... **\$26.95**

No. 10-Z-2146. Linen Cabinet, Clear Oak (not oiled or varnished) and no hardware included. Price..... **\$29.95**

PRICES

No. 10-Z-2148. Breakfast Alcove as described above, Yellow Pine	\$49.75
No. 10-Z-2149. Breakfast Alcove as described above, Oak or Birch	\$60.50

This
Sideboard
for
\$64⁷⁵



"Ravenswood" Sideboard

Yellow Pine,
Oak or
Birch

This
Cabinet
for
\$46⁷⁵



Kitchen Cabinet and Sideboard

This beautiful cabinet is built to set in recess and furnished 5 feet and 6 feet wide, 14 inches deep; made to line up with 6 feet 8 inch or 7 foot doors. Prices include leaded glass doors as shown, plain mirror and necessary trim. Shipping weight, 390 pounds.

No. 10-Z-800. Ravenswood Sideboard, 5 feet wide and 6 feet 8 inches or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **\$64.75**

No. 10-Z-801. Same size as above, Red Oak..... **\$67.85**

No. 10-Z-803. Ravenswood Sideboard, 6 feet wide and 6 feet 8 inches or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **\$68.95**

No. 10-Z-804. Same size as above, Red Oak..... **\$71.75**

If to extend into room with sides exposed, add \$2.00 for Yellow Pine and \$2.50 for Oak. For Beveled Plate Mirror add \$2.50.

Our Elgin Combination Kitchen Cabinet and Sideboard fills a long-felt want. Above is plenty of shelf space, below are three large drawers and a large flour bin. This cabinet is built to set in recess 5 feet and 6 feet wide and made to line up with 6 feet 8 inches or 7 foot doors. The top section is 14 inches deep, while the bottom section is 20 inches deep. Prices include glass and necessary trim. Shipping weight, 350 pounds.

No. 10-Z-744. Elgin Cabinet, 5 feet wide and 6 feet 8 inches or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **\$46.75**

No. 10-Z-745. Same size as above, Oak or Birch..... **\$48.65**

No. 10-Z-746. Elgin Cabinet, 6 feet wide and 6 feet 8 inches or 7 feet high, Clear Yellow Pine (no hardware, oil or varnishing included). Price..... **\$48.95**

No. 10-Z-747. Same size as above, Oak or Birch..... **\$50.95**
If to extend into room with sides exposed, add \$2.00 for Yellow Pine and \$2.50 for Oak.

Built-In Cabinets, Cupboards and Tables

Medicine Cabinet

\$9⁹⁵



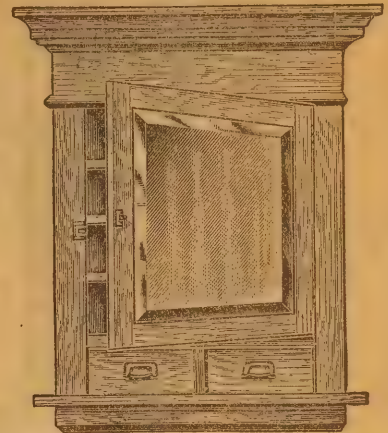
Combination Medicine Case and Bath Cabinet

\$28⁵⁰



Medicine Cabinet

\$11⁴⁵



Specifications: Size of door 1 foot 6 inches wide by 1 foot 10 inches high. Depth of case in wall 4½ inches, opening in wall 1 foot 8 inches wide by 2 feet high. Size of mirror 14 inches by 18 inches. Adjustable wooden shelves, furnished with casing, head trim, etc., as shown in illustration. No hardware or finishing included.

No. 10-Z-851. Yellow Pine, Glazed with Plain Plate Mirror.....	\$ 8.90
No. 10-Z-852. Yellow Pine, Glazed with Bevel Plate Mirror. Price.....	10.05
No. 10-Z-853. Oak or Birch, Glazed with Plain Plate Mirror. Price.....	9.50
No. 10-Z-854. Oak or Birch, Glazed with Bevel Plate Mirror. Price.....	10.65
Shipping weight 60 pounds.	

Specifications: Size of Door 1 foot 6 inches wide by 1 foot 10 inches high. Opening in wall 1 foot 8 inches wide by 2 feet 6 inches high. Depth of case in wall 4½ inches. Adjustable wooden shelves, furnished with casing, head trim, drawers, etc., as shown in illustration. No hardware or finishing included.

No. 10-Z-889. Yellow Pine, Glazed with Plain Plate Mirror. Price.....	\$11.45
No. 10-Z-890. Yellow Pine, Glazed with Bevel Plate Mirror. Price.....	12.65
No. 10-Z-892. Oak or Birch, Glazed with Plain Plate Mirror. Price.....	11.95
No. 10-Z-893. Oak or Birch, Glazed with Bevel Plate Mirror. Price.....	13.15
Shipping weight 70 pounds.	

When we designed this Combination Bathroom Cabinet we had in mind the homes that required not only additional space, but convenience as well. This cabinet, like all others shown in this catalog, is of the very best quality material, which is especially selected for this class of work. The one small drawer and four large drawers below are just the thing for towels and toilet articles of all kinds.

Specifications: Lower section containing drawers is 12 inches deep, 24 inches wide and measures 4 feet from the floor and has both ends finished to extend into room. Upper section is the same as our No. 10-Z-851 Medicine Cabinet; size of mirror is 14 inches wide and 18 inches high. No hardware or finishing included.

No. 10-Z-891. Yellow Pine, Glazed Bevel Plate Mirror. Price.....	\$23.50
No. 10-Z-891A. Oak or Birch, Glazed Bevel Plate Mirror. Price.....	29.95
Shipping weight 190 pounds	

Drawer or Pantry Cases, \$9.75



This Drawer Case can be used in pantries, closets, etc. It is made with three large drawers as shown, made of Clear Yellow Pine and Oak, not painted or varnished, but smoothed, ready for any finish to match your woodwork. This case measures 3 feet wide, 2 feet 10 inches high and 1 foot 4 inches deep. The sides and back are not sealed.

No. 10-Z-908. Clear Yellow Pine.....	\$ 9.75
No. 10-Z-909. Clear Red Oak.....	10.50
Shipping weight 90 pounds.	

Modern Kitchen Table, \$23.95



Usefulness more than beauty is the requirement for Kitchen Furniture. This Kitchen Table is useful and will save the housewife many trips to the pantry. Is made to order in Yellow Pine or Oak, 4 ft. 6 in. wide, 2 ft. 10 in. high and 20 in. deep. Four convenient drawers, roomy utensil cupboard, large capacity tilting flour bin and chopping board. No hardware or finishing included.

No. 10-Z-912. Yellow Pine.....	\$23.95
No. 10-Z-913. Oak or Birch.....	26.98
Shipping weight 180 pounds.	

A Page for the Handy Man



10-Z-201

10-Z-204

China Closets and Book Case Doors

In these four designs, we offer a choice from which any one building his own china closet can make a satisfactory selection. No. 10-Z-201 is a glazed clear glass, and Nos. 10-Z-204 and 10-Z-202 are glazed with Leaded Crystal Glass. No. 10-Z-203 is exceptionally artistic and is a combination of a rich color in the design only, with a clear glass background. Just enough color to make it look pretty and desirable for either china closet or bookcase doors.

Our China Closet Doors are made 1 1/8-inch thick and furnished in either clear Yellow Pine or Red Oak.

Prices on China Closet Doors Clear Yellow Pine

SIZES	10-Z-201	10-Z-204	10-Z-202	10-Z-203
1-6 x 3-0	\$2.20	\$3.72	\$3.75	\$3.80
1-8 x 3-4	2.45	4.80	4.85	4.90
1-6 x 4-0	2.55	5.25	5.30	5.35
1-8 x 4-0	2.80	5.85	5.90	5.95

Shipping Weight 25 Pounds.

For Red Oak Wood add 60c extra each Door

Important: All Glass in the above doors set in with wood stops.



10-Z-202

10-Z-203



10-Z-222



10-Z-225

High Quality Cupboard Doors

Our Cupboard Doors are of the neatest design and excellent workmanship. These doors are manufactured from the finest grade of seasoned lumber and we guarantee that they will not warp or check in any way. With these doors it will be very easy to construct a simple design of cabinet and the cost of the entire cabinet can thus be kept within a very low figure. The doors are made of Clear Yellow Pine with a beautiful grain. We carry these doors in stock in two thicknesses, 1 1/4 inch and 1 1/2 inches. Be sure to specify thickness when ordering as this is very important.

Prices on Cupboard Doors

10-Z-222 and 10-Z-225

SIZES		1 1/4 Inch Thick Clear Yellow Pine	1 1/2 Inch Thick Clear Yellow Pine
Width Ft. In.	Height Ft. In.		
1-6 x 2-0		\$1.16	\$1.26
1-6 x 2-6		1.18	1.28
1-6 x 3-0		1.24	1.46
1-6 x 4-0		1.68	1.85
1-8 x 2-6		1.18	1.28
1-8 x 4-0		1.72	1.95

Shipping Weight 25 Pounds.



10-Z-225



10-Z-225

FLOUR BINS

Make Your Own Kitchen Cabinet



Just the thing to use for the construction of kitchen cabinet or pantry cupboard. It is a tilting flour bin made of selected wood, clear yellow pine faced and lined with basswood.

All material is glued, smoothed and ready to put together, but is shipped to you knocked down. The bin is so arranged that it can be fastened at the bottom with small loose bin butts, giving it an excellent tilt of arrangement and yet making it possible to take it out of the cabinet for cleaning and airing.

These bins are made 2 ft. 6 in. high, 1 ft. 6 in. wide, 9 in. at the bottom and 17 in. at the top.

No. 10-Z-882. Price in the

Knock Down.....\$4.65

No. 10-Z-883. Price Set Up 4.85

Shipping Weight 38 Pounds.

SEPARATE DRAWERS



These drawers are made from seasoned, selected stock, with clear Yellow Pine lip face and soft wood body. They are well manufactured in every way. We furnish in the most desirable sizes, listed below, all drawers being made 18 inches deep.

Prices 10-Z-879

Sizes Width up to	Height In.	Depth In.	Price, Each, K. D.		Price, Each, Set Up	
			Y. P.	Oak	Y. P.	Oak
1' 5"	4 1/2	18	\$0.98	\$1.25	\$1.18	\$1.45
3'	6 1/2	18	1.76	1.95	1.96	2.15

Shipping Weight 16 Pounds.

Exceptional Values In Stair Material



Circle Treads and Risers

Furnished Complete as Illustrated
Built—Ready to Set in Place

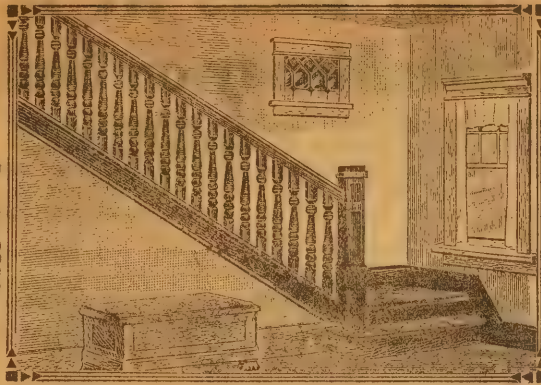
Circle Step—Furnished Right or Left Hand Return
Illustration shows left-hand return
Prices for Sizes up to 4 ft. (Width of Stairs)

No.	Description	Wood	Price Each
10-Z-660.	Left Hand Return	Clear Y. P.	\$7.60
10-Z-661.	Right Hand Return	Clear Y. P.	7.60
10-Z-662.	Left Hand Return	Clear Oak	9.00
10-Z-663.	Right Hand Return	Clear Oak	9.00

Stair Rail



3 1/4 x 2 1/4" Rabbeted 7/8"
10-Z-666. Mission Rail. Prices per Lineal Foot.
Yellow Pine.....36c
Red Oak.....46c
Add 1c per foot if rabbeted for 1 1/2 in. or 1 3/4 in. Balusters.



HIGHEST GRADE SELECTED STOCK—BEST WORKMANSHIP

The stairway is the first thing to be noticed about the interior of a house, just as the stairway picture caught your eye when you opened the book at this page. Therefore, it is essential that you look well to the style and class of material used for this purpose.



Circle Treads and Risers

Furnished Complete as Illustrated
Built—Ready to Set in Place

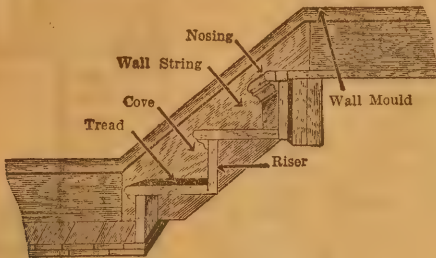
Circle Step—Furnished Right or Left Hand Return
Illustration shows Right Hand Return
Prices for Sizes up to 4 ft. (Width of Stairs)

No.	Description	Wood	Price Each
10-Z-672.	Right Hand Return	Clear Y. P.	\$6.60
10-Z-673.	Left Hand Return	Clear Y. P.	6.60
10-Z-674.	Right Hand Return	Clear Oak	8.10
10-Z-675.	Left Hand Return	Clear Oak	8.10

Stair Shoe and Fillet



10-Z-157. Rabbeted Shoe. Per Lineal Foot.
Yellow Pine.....4c
Oak.....7c
10-Z-158. Fillet. Per Lineal Foot.
Yellow Pine.....2c
Oak.....3 1/2c



Stair Treads and Risers

Illustration to the left shows a sectional view of our stair treads, risers, string, etc., showing how easy it is to put up a flight of stairs from the material we quote.

Not only do our prices on stairwork effect a great saving for you, but you can build a larger range of sizes and a larger variety from the stock we list. You can put up a flight of stairs from our machined and cut-up stock in quicker time with less cutting, an important labor-saving feature.

PRICES OF TREADS AND RISERS

Surfaced, cut smooth and nosed front. Clear Stock. Price each.

No.	Inches	Sizes	Feet	Y.-P.	Oak
10-Z-666.	Riser	3/4 x 7 1/4	3	\$0.30	\$0.58
10-Z-678.	Riser	3/4 x 7 1/4	3 1/2	.35	.68
10-Z-670.	Riser	3/4 x 7 1/4	4	.40	.80
10-Z-668.	Tread	1 1/2 x 11 1/4	3	.68	1.32
10-Z-682.	Tread	1 1/2 x 11 1/4	3 1/2	.70	1.40
10-Z-683.	Tread	1 1/2 x 11 1/4	4	.82	1.60



WALL ROSETTE

10-Y-669. Price Each
Size 4 1/2 x 4 1/2
Yellow Pine.....30c
Red Oak.....35c

ACORN END FOR ROUND RAIL



10-Z-671. Acorn End, Yellow Pine.....20c
10-Z-677. Acorn End, Red Oak.....23c

ROUND RAIL

10-Z-670. Rail, 1 1/2 inches diameter, Y. P. 8c
10-Z-676. Rail, 1 1/2 inches diameter, P. O. 13c



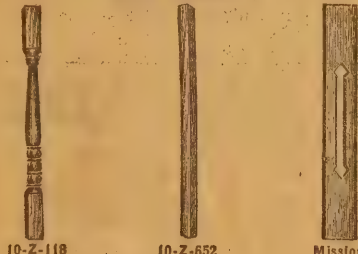
SQUARE EDGE BALUSTER STOCK

10-Z-653. Square surfaced 4 sides smoothly finished; furnished in random lengths. Price per 100 lineal feet:

Yellow Pine 1 1/2 x 1 1/2.....\$3.15
Oak 1 1/2 x 1 1/2.....\$5.40
1 1/2 x 1 1/2.....6.95 13.00

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Stair Balusters



1 1/2 inches thick; furnished 28 inches and 32 inches long. No. 10-Y-652 also supplied in long lengths. Smoothly finished.

Cat. No.	Length 28 inches	Length 32 inches
10-Z-118	Y. P. 27c	Oak 40c
10-Z-652	22c	35c

Balusters	Length 28 inches	Length 32 inches
10-Y-669. 3/4 x 2 1/4 inches	Y. P. 27c	Oak 30c
Yellow Pine	27c	30c
Red Oak	29c	34c

10-Z-124 Main Newel

10-Z-206 Main Newel

10-Z-684 Mission Main Newel

10-Z-128 Angle or Landing Newel

10-Z-685 Mission Angle Newel

Artistic and Exclusive Designs, 8 inches at Base, 6 inch Shaft. 4 feet long, extra long base.
Price each
10-Z-124.....\$5.90
10-Z-206.....\$7.25
10-Z-684. Cap. 3/4 in.; Shaft, 6 in.; Base 7 1/2 in.
Height 4 ft. Yellow Pine \$6.60 Red Oak \$8.10

5 inch extra long Shaft can be cut down to use as landing or starting newels.
Prices of Angle Newels.
Price each Y. P. Plain Oak
10-Z-128.....\$4.50
ANGLE NEWEL 10-Z-685. 5 ft. long.
Price, ea. Yellow Pine, \$5.25; Red Oak, \$6.70.



LANDING NOSING

10-Z-8262. Size, 1 1/2 x 2 1/2. Price per 100 lineal feet.
Yellow Pine \$5.65
Plain Red Oak 9.40



RETURN NOSING

10-Z-8262 1/2
Size 1 1/2 x 1 1/2
Yellow Pine.....\$3.90
Oak.....6.75

STAIR STRINGERS

Prices per 100 Lineal Feet.

No.	Size	Wood	Price
10-Z-654.	Wallmold 3/4 x 1 1/2	Y. P.	\$2.35
10-Z-655.	Wallmold 3/4 x 1 1/2	Oak	4.05
10-Z-656.	String 1 x 10	Y. P.	11.50
10-Z-678 1/2.	String 1 x 12	Y. P.	12.50
10-Z-657.	String 1 x 10	Oak	22.50
10-Z-679 1/2.	String 1 x 12	Oak	27.00

WALL MOLD



Free! Our New Harris Home Book of Plans!

Complete Stair Bills at Big Savings

How to Save Money on Stair Work

The six stair bills shown here have been carefully designed to suit the average requirements. Material for the same designs reversed, furnished at prices quoted. We may not show the particular stair design you want, or you may wish to make changes in the material and use some other styles in Newels, Rail or Balusters. We are prepared to figure with you on any kind of Special Stairwork and urge you to send us your details for prices. Where the carpenter prefers to cut out his own stringers, we suggest that you order the material only.

The prices specified on each stairway cover the material only with stair stringers not housed or cut out to receive treads and risers also, the material with stair stringers housed.

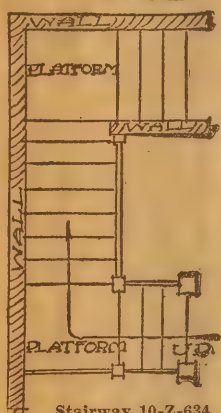
The material mentioned in our list is based on average run of stairs not higher than 9 ft. 9 1/4 inches from floor to floor. Stair carriages are not furnished with these bills as this part of the work should be done on the job to insure an exact fit. Treads and risers are cut to lengths specified.

When you order the stairway with the stringers housed do not fail to give us exact height from finished floor to finished floor, also the measurement of the floor space the stairway will occupy.

These bills of Stair Material are furnished in the knock-down only and we are very careful in preparing for shipment, everything being properly packed and bundled so as to reach you in the best of condition.

We quote on both Clear Yellow Pine and Clear Red Oak and taking quality into consideration, we know our prices are away below what ordinarily is asked for goods of this character.

\$56⁷⁵ BUYS MATERIAL FOR THIS STAIRWAY



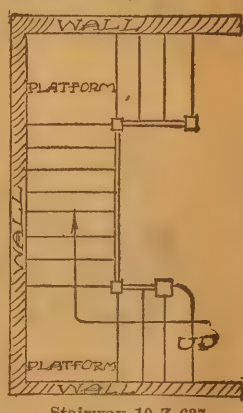
Consisting of:	Size Inches	Length Feet
13 Treads	1 1/4 x 11 1/4	3
3 Pieces Nosing	1 1/4 x 2 1/4	3
16 Risers	3/4 x 7 3/4	3
2 Stringers	3/4 x 9 1/2	10
2 Stringers	3/4 x 9 1/2	8
1 Face Stringer	3/4 x 11 1/2	14
70 Lin. ft. Cove	3/4 x 7/8	
16 Lin. ft. Wall Moulding	3/4 x 1 1/2	
12 Lin. ft. Fillet	3/4 x 1 1/2	
12 Lin. ft. Shoe	3/4 x 2 1/4	
160 Lin. ft. Balusters	1 1/4 x 1 1/2	\$48
14 Lin. ft. Stair Rail	2 1/4 x 3 3/4	
2 Main Newels		
2 Landing Newels		
6 Base Blocks	1 1/4 x 4 1/2 x 10	

Stairway 10-Z-634	Yellow Pine	Red Oak
Total Price (Stringers not housed) KD and bundled	\$56.75	\$87.50
Stairway 10-Z-634-H with Stringers housed to receive Treads and Risers	\$63.75	\$96.50
Shipping Weight approximately 560 lbs.		

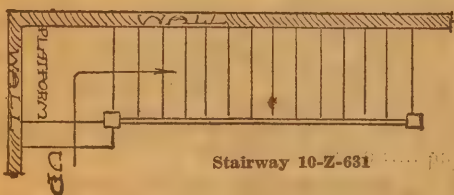
\$54⁹⁵ BUYS MATERIAL FOR THIS STAIRWAY

Consisting of:	Size Inches	Length Feet
12 Treads	1 1/4 x 11 1/4	3
3 Pieces Nosing	1 1/4 x 2 1/4	3
1 Starting Step		
15 Risers	3/4 x 7 3/4	3
2 Stringers	3/4 x 9 1/2	16
1 Face Stringer	3/4 x 11 1/2	16
70 Lin. ft. Cove	3/4 x 7/8	
16 Lin. ft. Wall Moulding	3/4 x 1 1/2	
12 Lin. ft. Fillet	3/4 x 1 1/2	
12 Lin. ft. Shoe	3/4 x 2 1/4	
140 Lin. ft. Balusters	1 1/4 x 1 1/2	\$48
12 Lin. ft. Stair Rail	2 1/4 x 3 3/4	
1 Main Newel		
3 Landing Newels		
3 Base Blocks	1 1/4 x 4 1/2 x 10	

Stairway 10-Z-637	Yellow Pine	Red Oak
Total Price (Stringers not housed) KD and bundled	\$54.95	\$85.70
Stairway 10-Z-637-H with Stringers housed to receive Treads and Risers	\$61.95	\$94.70
Shipping Weight approximately 550 lbs.		



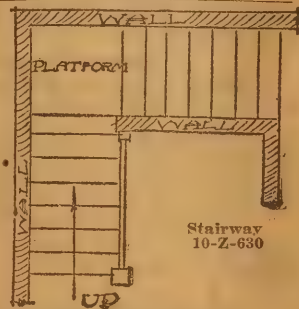
Stairway 10-Z-637



Stairway 10-Z-631

We have figured on the basis of the actual material only as specified in our bills listed here, based on average run not higher than 9 ft. 9 1/4 inches from floor to floor. Treads and risers will be cut to lengths specified. Carriages are not furnished—better results may be obtained by cutting them on the job as the variation of an inch or so in height from floor to ceiling is apt to cause trouble.

We furnish these stair bills in the knock-down. Carefully packed and bundled.



Stairway 10-Z-630

\$49⁹⁵ BUYS MATERIAL FOR THIS STAIRWAY

Consisting of:	Size Inches	Length Feet
13 Treads	1 1/4 x 11 1/4	3
2 Pieces Nosing	1 1/4 x 2 1/4	3
1 Starting Step		
2 Stringers	3/4 x 9 1/2	16
1 Face Stringer	3/4 x 11 1/2	14
70 Lin. ft. Cove	3/4 x 7/8	
16 Lin. ft. Wall Moulding	3/4 x 1 1/2	
14 Lin. ft. Shoe	3/4 x 2 1/4	
14 Lin. ft. Fillet	3/4 x 1 1/2	
170 Lin. ft. Balusters	1 1/4 x 1 1/2	\$48
14 Lin. ft. Stair Rail	2 1/4 x 3 3/4	
1 Main Newel		
1 Landing Newel		
3 Base Blocks	1 1/4 x 4 1/2 x 10	

Stairway 10-Z-631	Yellow Pine	Red Oak
Total Price (Stringers not housed) KD and bundled	\$49.95	\$69.75
Stairway 10-Z-631-H with Stringers housed to receive Treads and Risers	\$56.95	\$78.75
Shipping Weight approximately 475 pounds.		

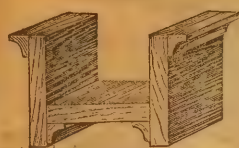
\$32⁹⁵ BUYS MATERIAL FOR THIS STAIRWAY

Consisting of:	Size Inches	Length Feet
14 Treads	1 1/4 x 11 1/4	3
2 Pieces Nosing	1 1/4 x 2 1/4	3
4 Stringers	3/4 x 9 1/2	9
1 Face Stringer	3/4 x 11 1/2	9
60 Lin. ft. Cove	3/4 x 7/8	
24 Lin. ft. Wall Moulding	3/4 x 1 1/2	
7 Lin. ft. Shoe	3/4 x 2 1/4	
7 Lin. ft. Fillet	3/4 x 1 1/2	
80 Lin. ft. Balusters	1 1/4 x 1 1/2	\$48
7 Lin. ft. Stair Rail	2 1/4 x 3 3/4	
1 Main Newel		
4 Base Blocks	1 1/4 x 4 1/2 x 10	

Stairway 10-Z-630	Yellow Pine	Red Oak
Total Price (Stringers not housed) KD and bundled	\$32.95	\$53.85
Stairway 10-Z-630-H with Stringers housed to receive Treads and Risers	\$39.95	\$62.85
Shipping Weight approximately 450 pounds.		

Beam Ceiling and Wainscoting

Ceiling Beam
7 Member



10-Z-544

Our 7-Member Beam is fully 6 inches wide and has a projection $4\frac{1}{2}$ inches from ceiling.

Yellow Pine, per lineal foot.....16c
Red Oak, per lin. ft. 32c



Ceiling Beam
5 Member



10-Z-545

Projection $4\frac{1}{2}$ inches.

Yellow Pine, per lineal foot.....10c
Red Oak, per lin. ft. 16c

Yellow Pine 5 and 7 Member Beam Ceiling for Room Size 12x12 ft., \$25.20

Beamed Ceilings are now considered an essential feature for the interior decoration of all high class residences, and by proper arrangement of beams, panels, mouldings, etc., beautiful and artistic effects may be gained which add greatly to beautify the home and make it more attractive. It is really surprising how far a little money goes in this respect. One can completely change the aspect and add a great deal more to the beauty of the interior of a room by a judicious use of beams, panels and wainscoting.

If you are considering plans for remodeling your home, you cannot accomplish more in enhancing the value than by putting in beamed ceilings and some paneling in the main rooms.

Wainscoting for Your Home Priced Very Low

Below we show how our panels No. 10-Z-550 can be used to panel off walls. The four Member Top Cap Moulding, Panel Strips, Base and Base Shoe are fully priced and described below.



No. 10-Z-1019. Cap as shown in illustration. Consists of four members and projects $3\frac{1}{2}$ inches from wall, while the member extending along the wall is $4\frac{1}{2}$ inches and grooved to fit over wood panel.

Yellow Pine, price per lineal foot.....16c
Plain Red Oak, price per lineal foot.....27c

No. 10-Z-549. Panel Strips or the upright pieces used to form the panel effect are $\frac{1}{2}$ x $2\frac{1}{2}$ inches.

Yellow Pine, price per lineal foot.....31c
Plain Red Oak, price per lineal foot.....61c

No. 10-Z-1020. Base which is used below panel is $\frac{3}{4}$ x $7\frac{1}{4}$ inches and is grooved to fit over panels.

Yellow Pine, price per lineal foot.....8c
Plain Red Oak, price per lineal foot.....18c

The base shoe or carpet strip can be found on other pages in this catalog.

We can also furnish Oak Panels; write us for special prices.

Three-Ply Panels for Wainscoting



10-Z-550

Slash
Grain
Fir
Stock

One
Side
Ready to
Finish

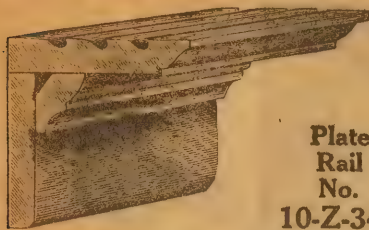
The beautifully figured slash grain Pacific Coast Fir makes the finest panels imaginable. Can be stained and finished to imitate oak, mahogany and other expensive woods. Fir Panels are laminated, that is, built up 3-ply, with the center layer running crosswise to the face, making them strong and warp proof, like the panels in our high grade Fir doors. The following table lists the sizes we carry in stock:

WIDTH INCHES	LENGTH INCHES	
	48 IN.	60 IN.
12	\$1.06	\$1.40
16	1.38	1.73
18	1.58	1.94
20	2.38	3.00
24	2.88	3.58

For two sides ready to finish add 50 per cent, or half more. Our Panels are cut evenly and in correct sizes.

WRITE US FOR FREE SAMPLE.

Interior Trimmings

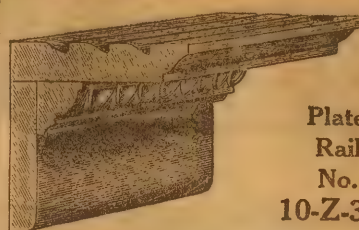


**Plate
Rail
No.
10-Z-340**

Furnished in clear Selected Yellow Pine or Oak. Three member. Projection from wall 4 3/4 inches. Height over all 4 1/2 inches. Price complete as shown.

Plate Rail 10-Z-340.

Yellow Pine.....Per Lineal Foot.....13c
OakPer Lineal Foot.....26c



**Plate
Rail
No.
10-Z-341**

Embossed Molding. Three member. Furnished in Clear Yellow Pine or Oak, carefully selected. Projection from wall 4 3/4 inches. Height over all 4 1/2 inches. Price complete as shown.

Plate Rail 10-Z-341.

Yellow Pine.....Per Lineal Foot.....16c
Oak.....Per Lineal Foot.....29c



**Plate
Rail
No.
10-Z-342**

Three member Rail with 1 1/4 inch face Bracket regularly spaced. Clear Yellow Pine or Oak—selected stock. Projection from wall 4 3/4 inches. Height over all 4 1/2 inches. Price complete as shown.

Plate Rail 10-Z-342.

Yellow Pine.....Per Lineal Foot.....18c
OakPer Lineal Foot.....31c



**Combination
Plate Rail and
Picture Mold**

Two members, fitted and glued together. Serves double purpose of Plate Rail and Picture Mold at price of one. Projection from wall 3 inches. Height over all 2 inches. Price complete as shown.

10-Z-343.

Yellow Pine.....Per Lineal Foot.....9c
OakPer Lineal Foot.....13 1/2c



Base Angles

No.	Size, Ins.	Wood	Price Per 100
10-Z-131.....	1 3/4 x 12.....	Yel. Pine.....	8c
10-Z-161.....	1 3/4 x 12.....	Pl. R. Oak.....	11c

Corner Beads



No.	Size, Ins.	Wood	Price Each
10-Z-130.....	1 3/4 x 4.....	Yel. Pine.....	24c
10-Z-160.....	1 3/4 x 4.....	Pl. R. Oak.....	39c

Round Edge Corner Bead



Price Per 100 Lineal Feet.

No.	Size, Ins.	Wood	Price
10-Z-541.....	1 3/4 x 1 3/4.....	Yel. Pine.....	\$4.95
10-Z-542.....	1 3/4 x 1 3/4.....	R. Oak.....	7.95

Hardwood Thresholds



No. 10-Z-154. 5/8 x 3 3/4 Ins.
Clear Birch, length 3 feet. Price, each.....16c
Clear Oak, length 3 feet. Price, each.....16c

Sliding and Folding Door Astragals



No. 10-Z-8446.

No. 10-Z-8449.

All Astragals are 8 feet long.

	Y. P.	Oak
10-Z-8446. Sliding Door Astragal, rabbetted, 1 3/4 inches, per pair.....	\$9.90	\$1.65
10-Z-8446. Sliding Door Astragal, rabbetted, 1 3/4 inches, per pair.....	.90	1.65
10-Z-8449. Folding Door Astragal, rabbetted, 1 3/4 inches, each.....	.75	1.25
10-Z-8449. Folding Door Astragal, rabbetted, 1 3/4 inches, each.....	.75	1.25

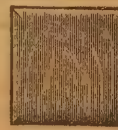
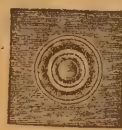
Embossed Egg and Dart Mold



Price per 100 Lineal Feet.

No.	Wood	Sizes and Prices
		3/4 x 1/2 Ins. 5/8 x 3/4 Ins.
10-Z-194.....	Yel. Pine	\$3.25 \$4.50
10-Z-195.....	Oak	3.50 4.80

**Head Blocks and
Corner Blocks**



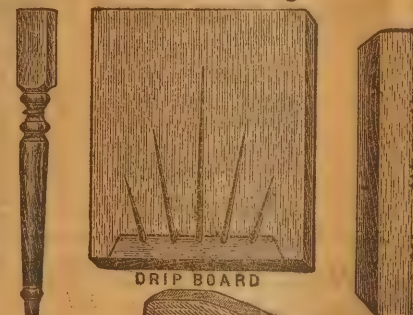
No. 10-Z-141

No. 10-Z-142

No. 10-Z-164

No.	Wood	Size	Price Each
10-Z-141	Yellow Pine	1 1/8" x 4 1/2" x 10"	15c
10-Z-141	Red Oak	1 1/8" x 4 1/2" x 10"	17c
10-Z-142	Yellow Pine	1 1/8" x 4 1/2" x 4 1/2"	10c
10-Z-142	Red Oak	1 1/8" x 4 1/2" x 4 1/2"	14c
10-Z-164	Yellow Pine	1 1/8" x 4 1/2" x 4 1/2"	7c
10-Z-164	Red Oak	1 1/8" x 4 1/2" x 4 1/2"	10c

Sink Trimmings



SINK LEG SINK CAPPING APRON

Prices of Sink Trimmings.

Furnished in Plain Oak Selected Stock. Apron will be shipped plain, not beaded.

No.	Size	Price
10-Z-179.	Sink Board .....24x24.....	Each \$2.30
10-Z-180.	Sink Board .....24x30.....	Each 2.95
10-Z-181.	Sink Legs .....14x30.....	Each .38
10-Z-182.	Sink Apron .....7/8x5 1/2.....	Per lin. ft. .14
10-Z-183.	Sink Capping .....7/8x3.....	Per lin. ft. .09

**Embossed
Picture
Mold**



Price per 100 Lineal Feet.

No.	Size, Ins.	Wood	Price
10-Z-188.....	1 1/2 x 1 1/2.....	Yel. Pine.....	\$5.95
10-Z-189.....	1 1/2 x 1 1/2.....	Pl. R. Oak.....	6.95

Base Blocks

1 1/2 Inch Thick

10 Inches Long

Be Sure to State Width.

No. 10-Z-144

No. 10-Z-143

No.	Wood	Size	Price Each
10-Z-144	Yellow Pine	1 1/8" x 4 1/2" x 10"	13c
10-Z-144	Red Oak	1 1/8" x 4 1/2" x 10"	19c
10-Z-143	Yellow Pine	1 1/8" x 4 1/2" x 10"	15c
10-Z-143	Red Oak	1 1/8" x 4 1/2" x 10"	21c

High Grade Colonial Columns

Roman Ionic Cap

Roman Corinthian Cap

Plain Colonial Cap

Scamozzi Cap 10-Z-530



10-Z-531



10-Z-532



10-Z-533



Round Colonial Columns

IMPROVED LOCK JOINT CONSTRUCTION
BUILT UP FROM CLEAR SELECTED STOCK
OF THE MOST DURABLE LUMBER
PRIMED IN OIL

Our High Grade Colonial Columns are made of thoroughly seasoned lumber, selected with careful regard to weather-resisting quality, strictly clear stock being used. The staves are lockjointed and glued to make a perfect and tightly fitting joint.

In the matter of price, we have gone to the extreme limit to give the best quality for the least price, but in no way have we allowed price reduction to lower the high character of these goods.

We do not handle No. 2 Columns, as experience has proved that builders cannot be satisfied with an inferior grade.

PRICES COLONIAL COLUMNS

Diam. of Shaft, Inches.	Length, Feet.	10-Z-110 Plain Shaft as Illustrated.	10-Z-210 Half Fl't'd as Illustrated.	10-Z-109 Full Fl't'd as Illustrated.	Ship. Wt., Lbs.
6 x 6	6	\$2.25	\$3.75	\$3.95	30
6 x 6	8	2.49	4.00	4.20	35
6 x 6	9	2.67	4.30	4.50	38
6 x 8	6	2.70	4.40	4.60	40
8 x 8	8	3.13	4.73	5.10	48
8 x 8	9	3.55	5.25	5.50	50
8 x 8	10	3.95	5.65	5.95	54
10 x 10	6	3.66	5.35	5.60	55
10 x 10	8	4.10	5.80	6.10	62
10 x 10	9	4.70	6.40	6.70	68
10 x 10	10	5.27	7.15	7.50	72
12 x 12	6	4.86	6.90	7.35	64
12 x 12	8	6.00	7.95	8.40	68
12 x 12	9	6.95	8.95	9.45	72
12 x 12	10	7.50	9.50	9.95	75

COMPOSITION CAPS

All prices listed on this page are for columns complete with Plain Colonial Cap 10-Z-533, and base as shown. Add extra for Composition Cap as follows:

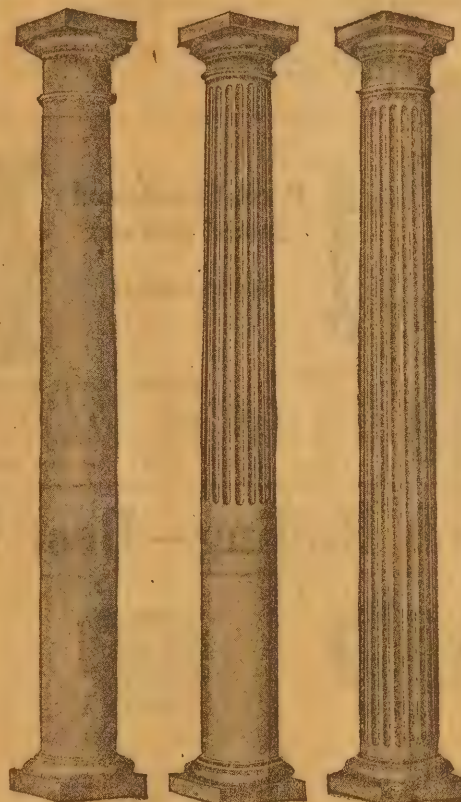
COMPOSITION CAPS EXTRA

For Size of Column any Length.	Scamozzi Cap 10-Z-530	Roman Ionic Cap. 10-Z-531	Roman Corinthian Cap. 10-Z-532
6" Column	\$1.50	\$2.25	\$3.75
8" Column	1.60	2.40	5.40
10" Column	1.90	2.85	6.20
12" Column	2.75	4.10	7.80

Notes: We can furnish Composition Caps for interior columns. Write for prices.

"GIANT" COLONIAL COLUMNS

For the typical colonial home, nothing can surpass the majestic beauty and imposing grandeur of our "Giant" Colonial Columns. These columns are staved like the smaller columns and built of extra heavy stock, selected poplar. Even the smallest of these columns, 14 inches in diameter, are made of stock 2 inches thick and in the heaviest columns we use 3-inch lumber. This is an important fact, and always should be considered when comparing values. To insure reaching you in perfect condition, the "Giants" are given a prime coat of paint and shipped direct from factory.



10-Z-110

10-Z-210

10-Z-109

PRICES GIANT COLONIAL COLUMNS

Diam. Shaft Inches	Length Feet	10-Z-344 Fluted Shaft Scamozzi Cap as Shown	10-Z-345 Plain Shaft with 10-Z-533 Plain Cap	10-Z-346 Plain Shaft with 10-Z-530 Compo Cap.
14 x 14	9			
14 x 14	12			
16 x 16	12			
16 x 16	15			
16 x 18	16			
18 x 18	16			
20 x 20	18			
22 x 22	18			
24 x 24	20			
26 x 26	22			
28 x 28	24			
30 x 30	26			

Prices on Application

10-Z-344

Giant Colonial Column. Fluted Shaft.

We also make special prices on pergolas for garden or lawn decoration. Write for prices.

Porch Trimmings

Wood Porch Post and Newels

Made of
CLEAR SOFT OREGON FIR

SIZE AND PRICE No. 10-Z-113

Size	8 ft.	9 ft.	10 ft.
4x4 inches.....	\$1.15	\$1.28	\$1.60
5x5 inches.....	1.78	2.00	2.23
6x6 inches.....	2.56	2.88	3.20

NEWELS

Size	10-Z-112	10-Z-114	10-Z-115
4x4 in., 4 ft....	.....	\$0.60	\$0.58
5x5 in., 4 ft....	.....	.90	.88
6x6 in., 4 ft....	\$1.75	1.35	1.33
8x8 in., 4 ft....	2.00	.....	.....



10-Z-113



10-Z-114



10-Z-115



10-Z-112

Fancy Baluster

For exterior use. Made of clear soft Oregon fir, turned in first class workmanlike manner. Turned parts sanded.

PRICES

No. 10-Z-608 or 10-Z-609

Size 1 1/4 x 1 1/4 Inches

20 in. long, each.....	\$0.09
Crate of 50.....	4.35
24 in. long, each.....	0.09
Crate of 50.....	4.40

Size 2 1/4 x 2 1/4 Inches

20 in. long, each.....	\$0.16
Crate of 50.....	7.50
24 in. long, each.....	0.16
Crate of 50.....	7.50



Porch Spindle and Sawed Baluster

SOFT WOODS

10-Z-132

Size Price ea.

1 1/4 x 10" ... 4 1/2 c

1 1/4 x 12" ... 5 c



10-Z-601 Sawed Baluster

1/2-in. thick, 5 1/2-in. wide

Price, ea., 2 ft. long... 21c

Price, ea., 2 ft. 6 in. long... 23c



Square Built Up Columns and Newels

Made of
CLEAR SOFT OREGON FIR

Sizes and Prices of No. 10-Z-520

Length	8x8 in.	10x10 in.	12x12 in.
6 feet.....	\$2.51	\$3.30	\$3.68
8 feet.....	3.02	3.62	4.43
9 feet.....	3.32	3.93	5.09
10 feet.....	3.64	4.80	5.70

BUILT-UP NEWELS.

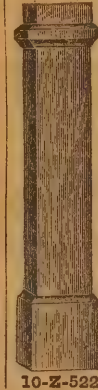
10-Z-522 Price, each

6x6 in., 4 ft. long..... \$2.40

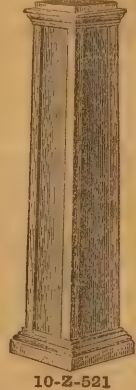
10-Z-521 Price, each

8x8 in., 4 ft. long..... \$2.00

10x10 in., 4 ft. long..... 2.40



10-Z-522



10-Z-521



10-Z-520

Porch Railing—Best Patterns

10-Z-560



TOP and BOTTOM RAIL

Rabbeted 3/4-Inches

Top Rail 1 1/4 x 3" 10-Z-560

Per 100 lineal ft. \$5.70

Bottom Rail 10-Z-561

1 1/4 x 3 Inches

Per 100 lineal ft. \$3.60



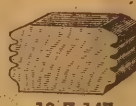
10-Z-146

Top Rail

1 1/4 x 3"

Per 100 Lin. Ft.

\$5.50



10-Z-147

Bottom Rail

1 1/4 x 3"

Per 100 Lin. Ft.

\$5.50



10-Z-606

Colonial Top Rail

Extra Heavy

2 1/4 x 3 3/4"

Per 100 Lin. Ft.

\$11.95



10-Z-607

Colonial Bottom Rail

Extra Heavy,

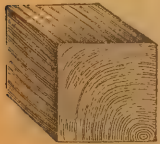
1 1/4 x 3 3/4"

Per 100 Lin. Ft.

\$7.40

Porch Balusters in Lineal Feet

Our porch baluster stock furnished in lineal feet, is all clear, soft Oregon fir correctly sized and well machined.



10-Z-556

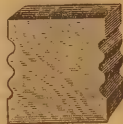
Square Baluster Stock
Surfaced All Sides

1 1/4 x 1 1/4 in., per 100 lineal feet..... \$1.88

1 1/4 x 1 in., per 100 lineal feet..... 2.65

1 1/4 x 1 1/4 in., per 100 lineal feet..... 3.95

Cut to lengths at 50c per 100 ft. extra.



Porch Baluster Stock

Clear Soft Wood

10-Z-152

Baluster Stock, 1 1/4" x 1 1/4"

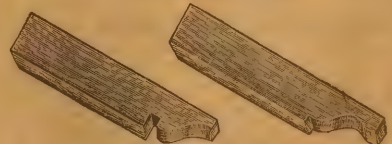
Per 100 lineal feet..... \$2.65

10-Z-151

Baluster Stock, 1 1/4" x 1 1/4"

Per 100 lineal feet..... \$3.95

Rafter Ends



10-Z-591

10-Z-594

Made from 2x4 and 2x6 stock, dressed 4 sides
Selected Oregon Fir or Short Leaf Yellow Pine

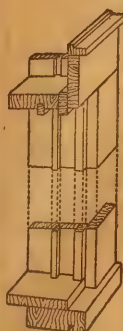
Length	2 ft.	4 ft.		5 ft.		6 ft.	
	2x4 in.	2x4 in.	2x6 in.	2x4 in.	2x6 in.	2x4 in.	2x6 in.
10-Z-591 ...	\$0.42	\$0.54	\$0.72	\$0.58	\$0.78	\$0.62	\$0.81
10-Z-594 ...	.40	.52	.70	.56	.74	.60	.80

Window Frames for Wood Frame Buildings

Our Window Frames are made of practically Clear Pacific Coast Fir and are of the highest grade that is manufactured. These frames are for frame buildings, having standard 2x4 studding, sheathing and plaster. All frames are carried in stock in the sizes listed below all machined, ready to put together, no further cutting or fitting is necessary. All that is necessary after receiving our frames is to nail them together and any carpenter can put any of our frames together in ten or fifteen minutes. All frames are shipped knocked down, securely bundled to avoid damage in transit. We carry a complete stock in all sizes for immediate shipment.

Plain Drip Cap Window Frames

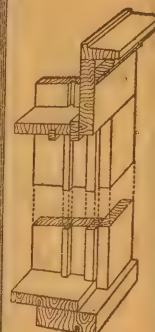
Illustration at the left shows our Plain Drip Cap Window Frames, which are furnished complete as shown, either with or without pulleys. Specifications: Outside casing 1½x4½ inches, pulley stiles and head jambs 13/16x 5½ inches over all, including blind stop; plowed for parting stop. Two member sill, main section 1½x3½ inches, sub-section ¾x5½ inches, drip cap 1½x1½ inches. See insert section for construction of frames.



Section of
Drip Cap
Window
Frame

Crown Mold Cap Window Frames

Illustration at the right shows our Crown Mould Cap Window Frames, which are furnished complete as shown, either with or without pulleys. Specifications are the same as our Drip Cap Window Frame to the left, with exception that Head Casing is 5½ inches wide to allow for crown mould cap. Size of crown moulding is ¾x2½ inches, size of drip cap 1½x3 inches. See insert section for construction of frames.



Section of
Crown Mold
Cap Window
Frame

Remember our stock of Window Frames are made for buildings with standard 2x4 studding. Where pulley stiles for window frames are wanted wider than our stock, add 25c extra for each additional inch or fraction thereof. Such frames will have to be made special and will require more time to make shipment.

MULLION AND TRIPLE FRAMES

Mullion or Double Frames are double the price of regular frames of the same window opening size plus 50c. Triple Frames are three times the price of regular window frames of the same window opening size plus \$1.

A window frame 28x28 2 lights is considered an average size and weighs approximately 40 pounds. Other frames will weigh more or less in proportion, according to sizes.

PRICES OF FRAMES FOR CHECK RAIL WINDOWS FOR WOOD FRAME BUILDINGS

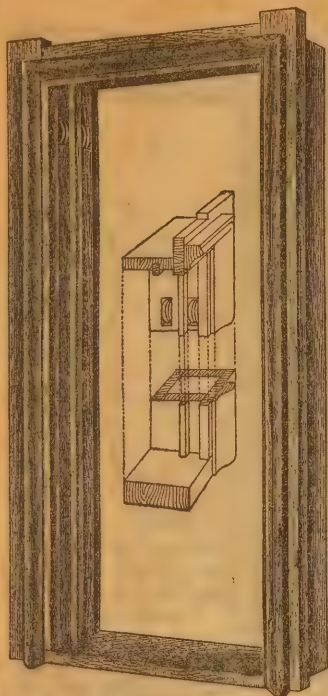
Frame for Windows Containing TWO LIGHTS of Glass				DRIp CAP				CROWN MOLD CAP			
Glass Sizes Prices cover frame only	Outside Window measurement.		Inside opening of frame.	1½ inch Casing without pulleys	1½ inch Casing including pulleys	1½ inch Casing without pulleys	1½ inch Casing including pulleys	1½ inch Casing without pulleys	1½ inch Casing including pulleys	1½ inch Casing without pulleys	1½ inch Casing including pulleys
	Ft.	In.		10-Z-456	10-Z-458	10-Z-457	10-Z-459	10-Z-456	10-Z-458	10-Z-457	10-Z-459
12 x 20	1- 4½	x	3-10	\$2.16	\$2.36	\$2.38	\$2.62				
12 x 24	1- 4½	x	4- 6	2.44	2.64	2.66	2.90				
12 x 28	1- 4½	x	5- 2	2.62	2.82	2.84	3.08				
14 x 20	1- 6½	x	3-10	2.32	2.52	2.54	2.78				
14 x 24	1- 6½	x	4- 6	2.62	2.82	2.84	3.08				
14 x 32	1- 6½	x	5-10	2.76	2.96	2.98	3.22				
16 x 24	1- 8½	x	4- 6	2.68	2.88	2.90	3.14				
16 x 28	1- 8½	x	5- 2	2.92	3.12	3.15	3.39				
18 x 20	1-10½	x	3-10	2.44	2.64	2.70	2.94				
18 x 26	1-10½	x	4-10	2.92	3.12	3.17	3.41				
18 x 30	1-10½	x	5- 6	3.06	3.26	3.30	3.54				
20 x 20	2- 0½	x	3-10	2.62	2.82	2.86	3.10				
20 x 22	2- 0½	x	4- 2	2.65	2.85	2.90	3.14				
20 x 30	2- 0½	x	5- 6	3.14	3.34	3.40	3.64				
22 x 24	2- 2½	x	4- 6	2.92	3.12	3.15	3.39				
22 x 28	2- 2½	x	5- 2	3.14	3.34	3.20	3.44				
22 x 32	2- 2½	x	5-10	3.38	3.58	3.62	3.86				
24 x 20	2- 4½	x	3-10	2.76	2.96	3.02	3.26				
24 x 24	2- 4½	x	4- 6	2.92	3.12	3.16	3.40				
24 x 26	2- 4½	x	4-10	3.14	3.34	3.40	3.64				
24 x 28	2- 4½	x	5- 2	3.38	3.58	3.62	3.86				
24 x 30	2- 4½	x	5- 6	3.42	3.62	3.67	3.91				
24 x 36	2- 4½	x	6- 6	3.66	3.86	3.90	4.14				
26 x 26	2- 6½	x	4-10	3.14	3.34	3.40	3.64				
26 x 28	2- 6½	x	5- 2	3.38	3.58	3.62	3.86				
26 x 30	2- 6½	x	5- 6	3.40	3.60	3.65	3.89				
26 x 40	2- 6½	x	7- 2	3.82	4.02	4.08	4.32				
28 x 28	2- 8½	x	5- 2	3.38	3.58	3.64	3.88				
28 x 30	2- 8½	x	5- 6	3.52	3.72	3.80	4.04				
28 x 32	2- 8½	x	5-10	3.66	3.86	3.92	4.16				
30 x 24	2-10½	x	4- 6	3.38	3.58	3.64	3.88				
30 x 28	2-10½	x	5- 2	3.52	3.72	3.80	4.04				
30 x 30	2-10½	x	5- 6	3.56	3.76	3.82	4.06				
30 x 32	2-10½	x	5-10	3.66	3.86	3.94	4.18				
30 x 40	2-10½	x	7- 2	3.98	4.18	4.25	4.49				
32 x 24	3- 0½	x	4- 6	3.38	3.58	3.65	3.89				
32 x 30	3- 0½	x	5- 6	3.66	3.86	3.92	4.16				
32 x 36	3- 0½	x	6- 6	3.98	4.18	4.26	4.50				
34 x 30	3- 2½	x	5- 6	3.66	3.86	3.98	4.22				
36 x 24	3- 4½	x	4- 6	3.52	3.72	3.82	4.06				
36 x 28	3- 4½	x	5- 2	3.66	3.86	3.96	4.20				
36 x 32	3- 4½	x	5-10	3.82	4.02	4.16	4.40				
40 x 28	3- 8½	x	5- 2	3.86	4.06	4.18	4.42				
40 x 30	3- 8½	x	5- 6	3.98	4.18	4.30	4.54				
40 x 36	3- 8½	x	6- 6	4.10	4.30	4.45	4.69				

Frame for Windows Containing FOUR LIGHTS of Glass				DRIp CAP		CROWN MOLD CAP	
Glass Sizes Prices cover frame only	Outside Window measurement.		Inside opening of frame.	1½ inch Casing without pulleys	1½ inch Casing including pulleys	1½ inch Casing without pulleys	1½ inch Casing including pulleys
	Ft.	In.		10-Z-456	10-Z-458	10-Z-457	10-Z-459
10 x 20	2- 1	x	3-10	\$2.62	\$2.82	\$2.86	\$3.10
10 x 24	2- 1	x	4- 6	2.92	3.12	3.15	3.39
12 x 20	2- 5	x	3-10	2.75	2.95	3.00	3.25
12 x 22	2- 5	x	4- 2	2.92	3.12	3.17	3.41
12 x 24	2- 5	x	4- 6	2.95	3.15	3.20	3.45
12 x 26	2- 5	x	4-10	3.14	3.34	3.40	3.64
12 x 28	2- 5	x	5- 2	3.38	3.58	3.62	3.86
12 x 30	2- 5	x	5- 6	3.42	3.62	3.67	3.91
14 x 24	2- 9	x	4- 6	3.14	3.34	3.40	3.64
14 x 26	2- 9	x	4-10	3.38	3.58	3.62	3.86
14 x 28	2- 9	x	5- 2	3.52	3.72	3.80	4.04
14 x 32	2- 9	x	5-10	3.66	3.86	3.92	4.16
14 x 40	2- 9	x	7- 2	3.98	4.18	4.26	4.50
15 x 30	2-11	x	5- 6	3.56	3.76	3.82	4.06
15 x 32	2-11	x	5-10	3.66	3.86	3.94	4.18
15 x 36	2-11	x	6- 6	3.98	4.18	4.26	4.50

Frame for Windows Containing EIGHT LIGHTS of Glass				DRIp CAP		CROWN MOLD CAP	
Glass Sizes Prices cover frame only	Outside Window measurement.		Inside opening of frame.	1½ inch Casing without pulleys	1½ inch Casing including pulleys	1½ inch Casing without pulleys	1½ inch Casing including pulleys
	Ft.	In.		10-Z-456	10-Z-458	10-Z-457	10-Z-459
8 x 10	1- 9	x	3-10	\$2.26	\$2.46	\$2.48	\$2.72
9 x 12	1-11	x	4- 6	2.78	2.98	3.00	3.24
10 x 12	2- 1	x	4- 6	2.92	3.12	3.15	3.39
10 x 16	2- 1	x	5-10	3.38	3.58	3.62	3.86
12 x 14	2- 5	x	5- 2	3.40	3.60	3.68	3.92
14 x 16	2- 9	x	5-10	3.52	3.72	3.80	4.04
14 x 20	2- 9	x	7- 2	3.98	4.18	4.26	4.50

Frame for Windows Containing TWELVE LIGHTS of Glass				DRIp CAP		CROWN MOLD CAP	
Glass Sizes Prices cover frame only	Outside Window measurement.		Inside opening of frame.	1½ inch Casing without pulleys	1½ inch Casing including pulleys	1½ inch Casing without pulleys	1½ inch Casing including pulleys
	Ft.	In.		10-Z-456	10-Z-458	10-Z-457	10-Z-459
8 x 10	2- 4½	x	3-10	\$2.88	\$3.08	\$3.12	\$3.38
9 x 12	2- 7½	x	4- 6	2.98	3.18	3.24	3.50
10 x 12	2-10½	x	4- 6	3.38	3.58	3.64	3.88
10 x 14	2-10½	x	5- 2	3.52	3.72	3.80	4.04
10 x 16	2-10½	x	5-10	3.66	3.86	3.94	4.18
12 x 14	3- 4½	x	5- 2	3.70	3.90	4.00	4.20
12 x 20	3- 4½	x	7- 2	4.38	4.62	4.68	4.88

SPLENDID WINDOW FRAMES



Window Frames for Solid Brick, Stone or Cement Block Buildings

are illustrated at the left. These frames are known as Box Window Frames, made for a regular 9 inch wall, but can be used for 13 inch wall by using an extension jamb. Specifications: This frame has $1\frac{1}{2} \times 1\frac{1}{2}$ inch brick mould, $\frac{3}{4} \times 5$ inch blind stop, $\frac{3}{4} \times 4\frac{1}{2}$ inch pulley stile, $\frac{1}{2} \times 1\frac{1}{2}$ inch parting stop, $\frac{3}{4} \times 4\frac{1}{4}$ inch rabbeted box lining and $\frac{3}{4} \times 4\frac{1}{2}$ inch back box lining. All exposed lumber will be clear face stock, carefully selected and thoroughly seasoned. The box linings are made from good, sound, second quality lumber.

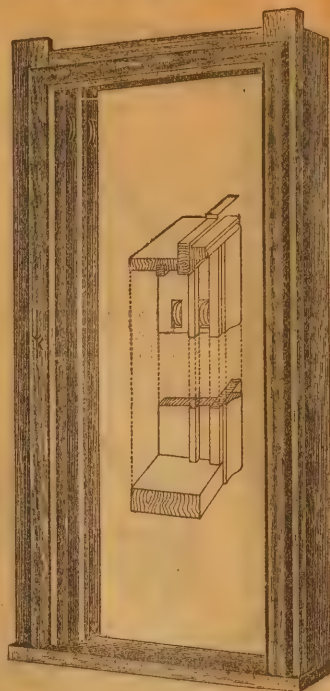
Window Frames for Brick Veneer Buildings

are illustrated at right. This frame is used for walls of 2x4 studding, veneered with a layer of brick, and they are made in the same manner as the frame for a brick or stone wall, with the exception that the box lining is omitted, not being required. All exposed lumber is clear face selected stock. Specifications: Blind stop, $\frac{3}{4} \times 3\frac{3}{4}$ inches; pulley stile, $\frac{3}{4} \times 4\frac{1}{2}$ inches, making width of jamb $5\frac{1}{2}$ inches, including blind stop. Brick mould, $1\frac{1}{2} \times 1\frac{1}{2}$ inches parting stop $\frac{1}{2} \times 1\frac{1}{2}$ inch. Sills made from 2x8 stock.

All our frames are made in exact sizes. Every piece is cut to fit, ready to put together, easily assembled. We ship them knocked down to avoid damage in transit and extra freight. Remember when consulting the table below that intermediate sizes are furnished at the price of the next larger size. When ordering, give size of window and frame will be made to fit.

Note: If Box Frames are wanted for brick arch, be sure to specify and allow 15c net extra for each frame.

A box window frame 28x28, 2 lights is considered an average size and weighs approximately 48 pounds. Other frames will weigh more or less in proportion, according to sizes.

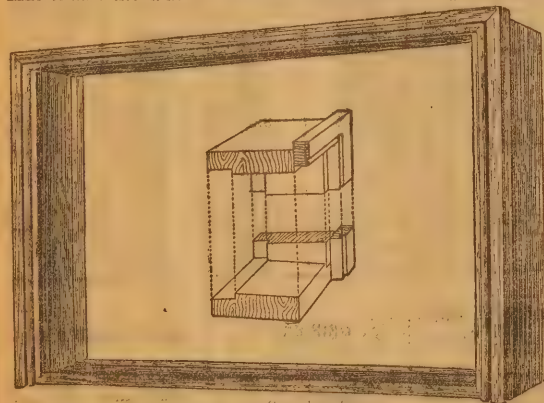


Prices of Box Window Frames
Order by Size and Number—Prices Include Pulleys

Width	Height	Price Each Frame No. 10-Z-108
2 feet 2 inch.....	4 feet 6 inch or smaller	\$4.40
2 feet 6 inch.....	5 feet 2 inch or smaller	4.50
2 feet 8 inch.....	5 feet 10 inch or smaller	4.65
3 feet 4 inch.....	5 feet 2 inch or smaller	4.95
4 feet.....	5 feet 10 inch or smaller	5.10
4 feet 4 inch.....	6 feet 6 inch or smaller	5.35

Prices of Brick Veneer Frames
Always Give Width First—Prices Include Pulleys

Width	Height	Price Each Frame No. 10-Z-467
2 feet 2 inch.....	4 feet 6 inch or smaller	\$3.98
2 feet 6 inch.....	5 feet 2 inch or smaller	4.10
2 feet 8 inch.....	5 feet 10 inch or smaller	4.20
3 feet 4 inch.....	5 feet 2 inch or smaller	4.55
4 feet.....	5 feet 10 inch or smaller	4.70
4 feet 4 inch.....	6 feet 6 inch or smaller	5.00



Cellar Sash Frame. No. 10-Z-107

Plank cellar sash frames are made with a $1\frac{1}{2} \times 5\frac{1}{2}$ inch jamb, $1\frac{1}{2} \times 1\frac{1}{2}$ inch clear brick moulding. Knocked down, bundled for shipment. Made of clear Western Fir. Plank cellar sash frame, size 3 feet 4 inches by 2 feet or smaller openings. **\$1.98**
Price Shipping Weight approximately 30 pounds

Mullion Frames

Mullion or Twin or Double Window Frames, just double price of regular frames of the corresponding size.

Triple Window Frames where three windows are used side by side, price will be just three times the cost of regular window frame as listed on this page for corresponding sizes.

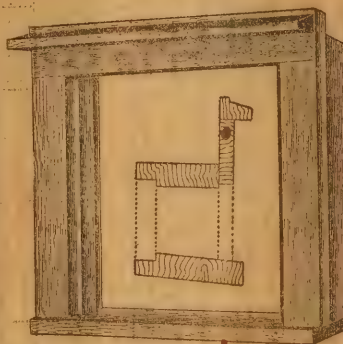
MULLION or TWIN or DOUBLE SASH FRAMES or CASEMENT SASH FRAMES, just double prices as listed.

Sash Frames

For Single Stationary Sash

These frames are used in gables, dormers, stair landings and vestibules.

Sash frame per illustration to right is made of the same high grade material as all the other window and door frames, suitable for frame buildings where 2x4 studding are used with lath and plaster on inside and sheathing on the outside, making jamb $5\frac{1}{2}$ inches over all. Furnished drip cap or crown mould cap, just as ordered. Also made from 2x6 or 2x8 plank for brick or stone building. Be careful to order correct style, stating in your order for what kind of a building same will be used and mention catalog number.



No.	Description	Price for Sash Opening 2-10x 2-11 or Smaller	Price for Sash Opening 3-4x 3-9 or Smaller	Price for Sash Opening 4-4x 5-10 or Smaller
10-Z-478.	Drip Cap for 2x4 Studding.....	\$2.25	\$2.70	\$3.65
10-Z-477.	Crown Cap for 2x4 Studding.....	2.60	3.10	4.10
10-Z-478.	2x6 Jamb for brick or stone wall.....	2.70	3.05	4.00
10-Z-479.	2x8 Jamb for brick or stone wall.....	3.10	3.40	4.05

Shipping Weight approximately 30 pounds

Casement Sash Frames

With Special Water-Tight Sill

These frames are made specially for casement sash, and the water-tight sill is so constructed that the sash can swing either in or out. When ordering you must specify which way you want your sash to swing. Be careful to order correctly, stating whether for frame or for brick building.

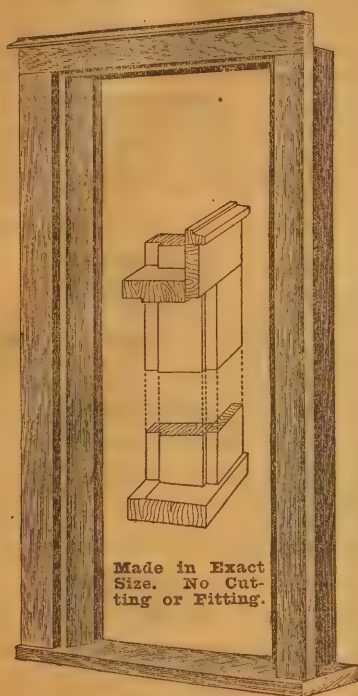
No. 10-Z-488. Casement Sash Frame for frame building, jamb not over $5\frac{1}{2}$ inches, special sill construction, for glass sizes up to 44x44, plain drip cap. Price, each.....\$4.20
No. 10-Z-489. Casement Sash Frame, same as above except Crown Mould Cap. Price, each.....\$4.30
No. 10-Z-490. Casement Sash Frame, same as above except made from 2x8 plank jamb or narrower jams for brick or stone or cement block buildings, for sizes up to 44x44. Price, each.....\$4.40
Also made for French Windows and Sash used in Paris. Write for Prices.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Highest Quality Outside Door Frames

WE CARRY a very complete stock of Door Frames in our mammoth warehouse in exact sizes as shown and priced below. Our door frames are made of thoroughly dried and seasoned lumber. We use practically clear fir lumber for the entire frame. All our door frames are knocked down and bundled for shipment so they will reach you in a clean and perfect condition and take the lowest freight rate.

In ordering door frames, be sure to give thickness of door for which it is intended. Unless otherwise specified, we ship doors rabbeted for $1\frac{3}{8}$ -inch thickness.



Made in Exact Size. No Cutting or Fitting.

Drip Cap Door Frames

$1\frac{1}{8}$ -inch Outside Casing

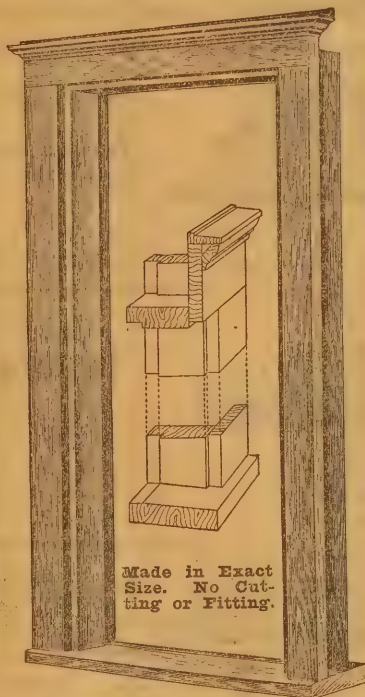
DOOR FRAME No. 10-Z-99

Outside door frame No. 10-Z-99 includes everything complete as shown; outside casing, $1\frac{1}{8} \times 4\frac{1}{4}$; solid sill, $1\frac{1}{8} \times 7\frac{1}{2}$; rabbeted jamb, $1\frac{1}{8} \times 5\frac{1}{2}$. Made from clear fir, practically all quarter-sawn bright stock, guaranteed high class in every particular.

No. 10-Z-99. Outside door frames for 2x4 studding, with solid clear fir sills, any size up to and including 3 ft. by 7 ft. rabbeted for doors $1\frac{3}{8}$ inches in thickness or $1\frac{1}{2}$ inches in thickness. Complete, bundled for shipment in the knock-down **\$4.10**

No. 10-Z-413. Plain drip cap door frame with transom head, not exceeding 2 feet in height. Price **\$4.95**

Oak sills for any of above frames, \$1.00 per frame extra.



Made in Exact Size. No Cutting or Fitting.

Crown Mould Cap Door Frames

$1\frac{1}{8}$ -inch Outside Casing

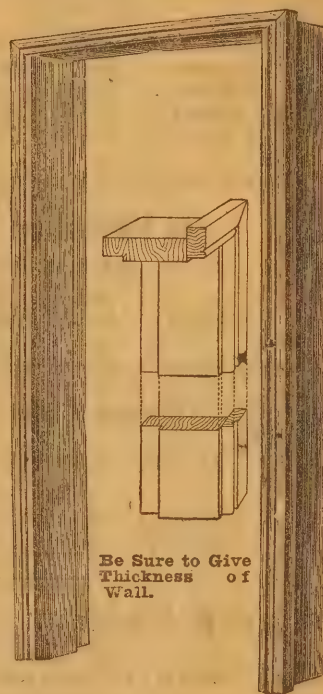
DOOR FRAME No. 10-Z-103

This frame has $1\frac{1}{8} \times 3$ inch Drip Cap, $1\frac{1}{8} \times 7$ inch head casing, $1\frac{1}{8} \times 4\frac{1}{4}$ inch outside casing, $2\frac{3}{4}$ inch crown moulding, $1\frac{1}{8} \times 5\frac{1}{2}$ inch jamb, rabbeted to suit thickness of door, solid sill $1\frac{1}{8} \times 7\frac{1}{2}$. Made from clear fir, practically all quarter-sawn.

No. 10-Z-103. Crown mold cap outside door frame for frame buildings with 2x4 studding. Knocked down and carefully bundled. For door 3 ft. x 7 ft. or smaller opening. Price **\$4.50**

No. 10-Z-414. Crown mold cap door frame with transom head, not exceeding 2 feet in height. Price **\$5.30**

Oak sills for any of above frames, \$1.00 per frame extra.



Be Sure to Give Thickness of Wall.

Cement Block, Stone or Brick Wall Door Frames

This frame has a $1\frac{1}{8} \times 1\frac{1}{8}$ inch clear brick moulding. The jamb is good, sound and practically clear. No sill furnished with this frame. Frames are used for stone, brick, or cement buildings. Shipped, knocked down and carefully bundled.

No. 10-Z-106-A. For 2x6 Jamb.

2 ft. 6 in. x 6 ft. 6 in. **\$3.25**
2 ft. 8 in. x 6 ft. 8 in. **3.35**
3 ft. x 7 ft. **3.55**

No. 10-Z-106. For 2x8 jamb.

2 ft. 6 in. x 6 ft. 6 in. **\$4.15**
2 ft. 8 in. x 6 ft. 8 in. **4.25**
3 ft. x 7 ft. **4.40**

No. 10-Z-106 $\frac{1}{2}$. For 2x10 jamb.

2 ft. 6 in. x 6 ft. 6 in. **\$5.10**
2 ft. 8 in. x 6 ft. 8 in. **5.30**
3 ft. x 7 ft. **5.60**

No. 10-Z-415. Plank door frame with transom head, not exceeding 2 feet in height. Add to price above. **80c**

Door frames weigh approximately 65 Pounds Shipping Weight

Clear Outside Mouldings

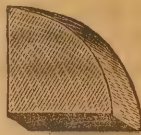
SUPERIOR QUALITY CLEAR SOFT WOODS FOR PAINT



Crown Mouldings

Price per 100 lineal feet

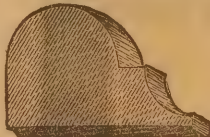
No.	Size	Fir
10-Z-8000	$\frac{3}{4}$ " x $3\frac{1}{4}$ "	\$2.63
10-Z-8005	$\frac{3}{4}$ " x $4\frac{1}{4}$ "	4.13
10-Z-8006	$\frac{3}{4}$ " x $4\frac{1}{4}$ "	3.57
10-Z-8008	$\frac{3}{4}$ " x $2\frac{1}{4}$ "	1.88



Quarter-Round

Price per 100 feet

No.	Size	Fir
10-Z-8065	$\frac{3}{4}$ " x $\frac{3}{4}$ "	\$0.60



Nosings

Price per 100 lineal feet

No.	Size	Fir
10-Z-8125	$1\frac{1}{2}$ " x $2\frac{1}{4}$ " for $1\frac{1}{2}$ " in. steps.	\$4.50



Bed Mouldings

Price per 1000 lineal feet

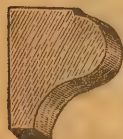
No.	Size	Fir
10-Z-8016	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	\$1.50



Sprung Cove

Price per 100 lineal feet

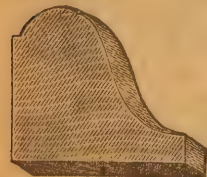
No.	Size	Fir
10-Z-8024	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	\$1.50
10-Z-8029	$\frac{3}{4}$ " x $3\frac{1}{4}$ "	2.63



Solid Bed Molds

Price per 100 lineal feet

No.	Size	Fir
10-Z-8036	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	\$1.13
10-Z-8037	$1\frac{1}{4}$ " x $1\frac{1}{4}$ "	2.18



Brick or Stone Moulding

Price per 100 lineal feet

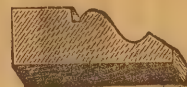
No.	Size	Fir
10-Z-8038	$1\frac{1}{4}$ " x $1\frac{1}{4}$ "	\$2.48
10-Z-8046	$1\frac{1}{4}$ " x $1\frac{1}{4}$ "	2.48



Coves

Price per 100 lineal feet

No.	Size	Fir
10-Z-8060	$\frac{3}{4}$ " x $\frac{3}{4}$ "	\$0.60
10-Z-8061	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	.95



Band Moulding

Price per 100 lineal feet

No.	Size	Fir
10-Z-8178	$\frac{1}{2}$ " x 2"	\$1.70
10-Z-8180	$\frac{1}{2}$ " x $2\frac{1}{4}$ "	2.10



O. G. Stops

Yellow Pine
Price per 100 lineal feet

No.	Size	Clear Yellow Pine
10-Z-8083	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	\$0.75
10-Z-8084	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	.83
10-Z-8085	$\frac{3}{4}$ " x $1\frac{1}{4}$ "	1.05
10-Z-8095	$\frac{1}{2}$ " x $1\frac{1}{4}$ "	1.50
10-Z-8096	$\frac{1}{2}$ " x $1\frac{1}{4}$ "	1.13



Lattice

Prices per 100 lineal feet

No.	Size	Fir
10-Z-8281	$\frac{1}{2}$ " x $1\frac{1}{4}$ "	\$0.75
10-Z-8282	$\frac{1}{2}$ " x $1\frac{1}{4}$ "	1.00

Watertable or Dripcap

Price per 100 lineal feet

No.	Size	Fir
10-Z-8283	$1\frac{1}{4}$ " x $1\frac{1}{4}$ "	\$2.48
10-Z-8284	$1\frac{1}{4}$ " x 2"	2.82
10-Z-8285	$1\frac{1}{4}$ " x $2\frac{1}{4}$ "	3.42
10-Z-8286	$1\frac{1}{4}$ " x 3"	4.02



Window Frame Stock

Clear Soft Oregon Fir

Many carpenters prefer to make their own window frames. Here is an opportunity to buy all the material required at minimum cost. This stock will make an elegant frame.



No.	Size	Price per 100 lineal feet.	Clear
10-Z-8429	$\frac{1}{2}$ " Outside casing.	$1\frac{1}{4}$ " x $4\frac{1}{4}$ "	\$5.25



No.	Size	Price per 100 lineal feet.	Clear Fir
10-Z-8430	Blindstop.		\$1.40



No.	Size	Price per 100 lineal feet.	Clear Fir
10-Z-8431	$\frac{1}{2}$ " Pulley stile. Plowed parting stop. Size $\frac{3}{4}$ " x $4\frac{1}{4}$ ".		\$3.75
	Yellow Pine.		4.50



No.	Size	Price per 100 lineal feet.	Clear Fir
10-Z-8432	Parting Stop.		\$0.75



No.	Size	Price per 100 lineal feet
10-Z-8439	$\frac{1}{2}$ " Mainsill. Beveled edges and rabbeted for siding. Size $1\frac{1}{4}$ " x $3\frac{3}{4}$ ". Sound solid Clear Fir stock.	\$7.00



No.	Size	Price per 100 lineal feet.	Clear Fir
10-Z-8440	$\frac{1}{2}$ " Subsill. Edges beveled. Size $\frac{3}{4}$ " x $5\frac{1}{2}$ ".		\$5.25



No.	Size	Price per 100 lineal feet.	Clear Fir
10-Z-8442	Jamb Stock. Size $1\frac{1}{4}$ " x $5\frac{1}{2}$ ". rabbeted, for $1\frac{1}{4}$ " or $1\frac{1}{2}$ " doors.		\$6.00



No.	Size	Price per 100 Lineal Feet	Clear Fir
10-Z-1672	Sill course. Size $1\frac{1}{4}$ " x $1\frac{1}{4}$ ".		\$3.50

Latest Creations in Art Glass

These black and white reproductions do not show the designs to the best advantage. The six designs shown in the top row are the latest creations in Novo Art Glass, which is the rage at the present time. The shaded portions of the glass are made of opalescent glass, rich in color, with a background of clear glass. Just enough color to make the glass beautiful and attractive. The four designs in the second row are leaded sheet crystal very beautiful in effect and furnished at prices far below the regular offering. Design No. 18-Z-7541-X is also leaded crystal, while the remaining six designs at the bottom of this page are leaded beveled plate.



No. 10-Z-1505X
Price per sq. ft....\$1.08



No. 10-Z-1517X
Price per sq. ft....\$1.06



No. 10-Z-1520X
Price sq. ft...\$1.06



No. 10-Z-1511X, \$1.08



No. 10-Z-1514X
Price, sq. ft...\$1.06



No. 10-Z-1523X
Price, sq. ft...\$1.06

Any of these designs are very desirable for Book-Cases, China Closets, Stair Landing and Hall Windows

LEADED DESIGNS GLAZED CLEAR SHEET CRYSTAL



10-Z-1540



10-Z-1542

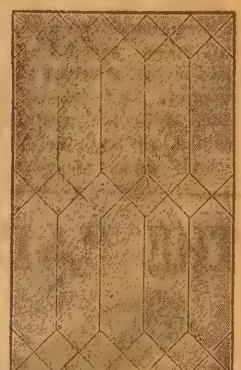
Prices Per Square Foot

10-Z-1540	96c
10-Z-1542	98c
10-Z-1545	\$1.26
10-Z-1548	98c

NOTE.—The designs on this page are made to order and on account of the skilled labor we fix a minimum charge for not less than 3 square feet of any one design.

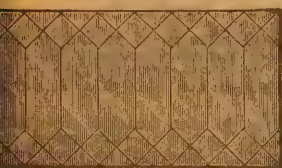


10-Z-1545



10-Z-1548

BEAUTIFUL LEADED BEVELED PLATE



Leaded
Clear Sheet Crystal
10-Z-1541X
Price per sq. ft.....98c



10-Z-1550X
Price per sq. ft....\$2.60



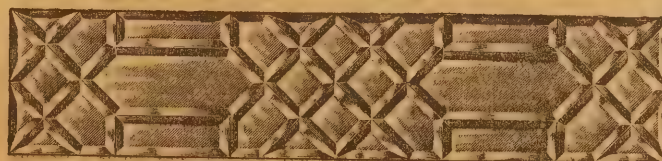
10-Z-1562X
Price, sq. ft...\$2.70



10-Z-1553X
Price per sq. ft.....\$2.60



Stairway or Door Light.
10-Z-1552



Side Light for Colonial Front Entrances.
10-Z-1554

10-Z-1552. Per Square Foot.....	\$2.42
10-Z-1554. Per Square Foot.....	\$2.37
10-Z-1557. Per Square Foot.....	\$2.48



Stairway or Door
Light.
10-Z-1557

SHEATHING PAPER AND TARRED FELT

To Be Used Under Floors, Shingles, Clap Boards—on Walls & Ceilings

Sheathing Papers Are Not Suitable for Roofing Purposes



"PREMIER"

Red Rosin Paper

A Sized Sheathing Paper, made by special process, faced on both sides, thoroughly rosin sized, making it damp-proof and vermin proof. We guarantee this paper to be absolutely the best for ordinary building purposes. Put up in rolls of 20 lbs., 30 lbs., 40 lbs.; 36 inches wide, containing about 500 sq. ft.

No.	Weight	Price, per Roll
10-Z-10.	20 lbs.	\$0.70
10-Z-11.	30 lbs.	1.05
10-Z-12.	40 lbs.	1.40

(500 Square Feet in each Roll.)

"PERFECTION"

Tarred Felt

Used for roofing, sheathing and general building purposes. Made of the best grade of wool felt, carefully selected, thoroughly saturated with distilled tar. Warranted to unroll freely without sticking.

Grade No. 1 is our heaviest and is used as a sheathing paper for all general purposes. Grade No. 3, medium weight, makes an excellent sheathing paper.

Rolls 32 inches wide, weighing approximately 60 lbs. each.

10-Z-13. Grade No. 1, 225 Sq. Ft. to roll.

Price, per roll.....\$2.93

10-Z-14. Grade No. 2, 450 Sq. Ft. to roll.

Price, per roll.....\$3.06

"PERFECTION"

Deadening Felt

Made of the very finest selected grade of wool felt, soft and pliable. It is used to deaden sound between floors and walls. We recommend that it be used under floors as it adds to the warmth of the building. Put up in rolls 36 inches wide.

10-Z-15. Grade No. 1, 1 1/2 lbs. per square yard, 75 lbs. to roll.

Per roll.....\$5.25

10-Z-16. Grade No. 2, 1 lb. per square yard, 50 lbs. to roll.

Per roll.....\$3.60

"Perfection" Slaters' Felt

This is the ideal sheathing paper and is also used largely under metal and slate roofs. It can be used in place of red rosin or any other of the sheathing papers we offer. It is put up in rolls 36 inches wide, each roll containing 500 sq. ft. Weight, per roll, approximately 35 lbs.

10-Z-18. Price, per roll.....\$1.60

High Grade "Insulating" Paper

On account of the high grade materials used in the manufacture of our Insulating Paper, it is bound to give exceptionally long service. For this reason it is most economical for sheathing, insulating and refrigerating purposes. It is put up in rolls 36 inches wide.

10-Z-102. "MEDIUM," 20-lb. roll 500 sq. ft. weighs 20 lbs. Per roll.....\$3.50

10-Z-103. "HEAVY," 35-lb. roll 500 sq. ft. weight 35 lbs. Per roll.....\$3.95

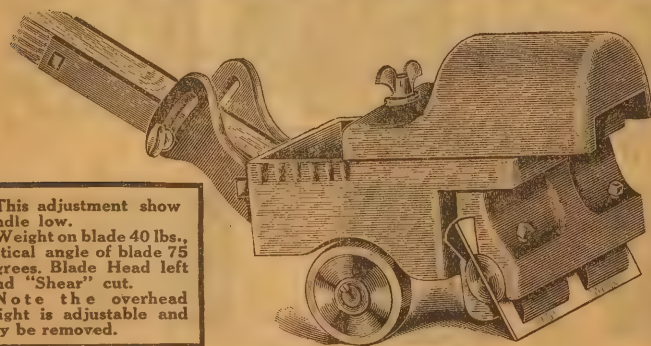
Blue Plaster Board

Here is the best grade of Plaster Board manufactured. It is guaranteed to be strong, tough paper. Used on clap boards for sheathing and on walls in place of plaster. When used for this purpose, it is tacked to the studding and wall paper can be placed over it, making a very satisfactory body. Put up in rolls 36 inches wide.

10-Z-16. Rolls containing 250 sq. ft., weight 30 lbs. Price.....\$1.75

10-Z-17. Rolls containing 500 sq. ft., weight 60 lbs. Price.....\$3.25

THE "ADJUSTABLE" FLOOR SCRAPER, \$29.50



This adjustment show handle low.

Weight on blade 40 lbs., vertical angle of blade 75 degrees. Blade Head left hand "Shear" cut.

Note the overhead weight is adjustable and may be removed.

OUR GUARANTEE: Five days are allowed for a thorough test. If the "Adjustable" does not do all we claim, send it back and we will return your money, paying freight both ways.

INTRODUCTORY OFFER \$60 Scraper for \$29.50

Our object in making this special offer is to introduce the best Scraper that brains and modern ingenuity can devise, and place them where they will show the best results, at a price that is within the reach of all. Remember, this offer is for a limited time only.

This machine is regularly sold on the market for \$60. Through an exceptionally fortunate buying arrangement we are able to offer it to the public at a discount of over 50% from the usual market price. You reap the benefit of this saving.

The "Adjustable" Scraper can be used by anyone. It is a Quality Machine. It is strong, durable, simple in construction.

It can be adjusted to suit the convenience of the operator. The overhead weight can be adjusted so that anywhere from 30 to 40 pounds of pressure rests directly on the blade, will scrape right up in the corners, close to the moulding along the wall, and do perfect and rapid work on hard or soft wood floors, old or new. Simply push and pull the machine forward and backward in an easy, natural way.

For finishing work the weight can be moved entirely, leaving but a slight weight upon the blade. Under a uniform pressure, an absolutely true and even cut is insured, leaving a perfectly smooth surface.

The iron wheels have rubber tires; are mounted on a split axle, so that each wheel operates and any corners or angles can be turned without marking the finished surface.

The weight of the machine is 125 lbs. The blades are 8 inches wide and are made of Disston's Saw Steel—the best blade material manufactured. With each machine we send complete instructions for operating same. In addition, we also furnish six Blades, Bur nisher and Wrench, all guaranteed against defective workmanship. Extra blades furnished at 90c each.

PAYS FOR ITSELF! The time you save in wages pays for the machine in a very short while, you can make some easy money on the side by taking odd jobs. You don't take any chances. All that we ask is that you give it a fair trial and if it does not do all we claim for it, send it back and we will return your money, paying freight charges both ways. The machine must be returned not later than five days after you have received it. This will give you sufficient time to give it a thorough test.

Don't confuse the "ADJUSTABLE" with any other Scraper on the market. The "ADJUSTABLE" is in a class by itself. We are using a number of them right here in our own plant, so if they did not do all we claim we would not be using them ourselves.

10-Z-1620. "Adjustable" Floor Scraper { Complete as above, securely } \$29.50
crated, F. O. B. Chicago

FROM TESTIMONIAL:

"I did more work in two hours with the 'Adjustable' than an entire gang of six could do in one day by hand."

Greenhouse Material at Low Prices

Pony Hot Bed Sash

ABSOLUTELY NEW

Our Pony Hot Bed Sash are made of the same high grade material as our standard 3 ft. x 6 ft. hot bed sash. These sash are guaranteed not to sag. On account of being much lighter and easier to handle than our large sash, they are just the thing for ladies who tend to their own gardens.



Half Size or Pony Hotbed Sash

SIZE, 3 feet x 3 feet
1 1/8 inch thick

JUST WHAT YOU NEED FOR A SMALL HOTBED

Clear Oregon Fir

No. 10-Z-1754. Single lots. Price each. \$2.50

No. 10-Z-1755. Dozen lots or more. Price each. \$2.40

No. 10-Z-1756. Lots of 50 or more. Price each. \$2.32

Shipping Weight, 32 Pounds.

Prices of Open
Hotbed Sash
Clear Oregon Fir

No. 10-Z-1757. Price, single lots, each. \$1.26

No. 10-Z-1758. Price in lots of one dozen or more. \$1.21

No. 10-Z-1759. Lots of 50 or more. Price each. \$1.10

Shipping Weight, 10 Pounds.

Special prices on lots of 100 or more.

Glass! Glass! Glass!

Special Brands of Greenhouse and Hotbed Glass packed expressly for our trade. The sizes listed below represent only a few of the best sellers. We carry a large stock of glass for prompt shipment. Get our prices before you buy.

Standard quality. Large stock on hand. Packed strong. Safe delivery guaranteed.

Lot Number	Size Inches	Price Per Box	No. Lights in Box
10-Z-1707	7x9	\$6.75	114
10-Z-1708	8x10	6.85	90
10-Z-1709	9x12	6.98	67
10-Z-1710	10x14	7.12	51
10-Z-1711	16x18	7.28	25

Here are 14 points of superiority analyzed. Read them over carefully and be convinced. But greater than these 14 points of superiority are our low prices.

1. Four rows of glass.
2. Extra strong bars.
3. All joints extra strong mortised and tenoned.
4. Standard size glass (costs less to replace).
5. Glass set by hand.
6. Best linseed oil putty.
7. Large triangular zinc glazing points.
8. Extra size tacks to hold glass in place.
9. Extra deep rabbet.
10. Wood — Clear, well seasoned, close-grain White Pine and Spruce.
11. Strengthened by heavy brads.
12. Largest number of strength-giving qualities.
13. Smallest number of shadow-casting bracing devices.
14. Quick shipment from Chicago.

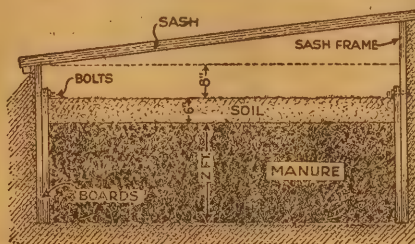
WHY FOUR-ROW SASH ARE BEST

Practical greenhouse men applying common sense to their business will readily concede that the standard size sash, 3 ft. x 6 ft., made with four rows of glass, makes the ideal hotbed or greenhouse. If the stiles, rails and bars were made narrow like the ones in sash made with five rows of glass, you would have a little more glass space to begin with but less glass to end with because such sash lack the strength and rigidity necessary to support the weight of 20 lbs. of glass. That is the very reason such sash require bracing. And such bracing bars cast an extra amount of shade and cost an extra amount of money. Our four-row sash doesn't need bracing; furthermore, because of many lights being shorts, there are more laps—and laps harbor dirt—and dirt casts shade. There you are. You will take the four-row sash with standard glass every time.

In the five-row sash, if the narrow bars are not braced there is danger of spreading in one row and danger of contraction in another. Result? Breakage of glass and loosening of putty. No, you can't use the five-row sash at any price. About sash made with three rows of 10-in. glass. There is a decided disadvantage because the price is higher to start with and they only have 2 center bars and cost twice as much to repair broken glass. The bars cannot be made heavier than the ones in our four-row sash because this will weaken the stiles or side pieces, which are narrow enough already. You are safer with the superior kind, and why shouldn't you buy them when you can get them for less money.

Our sashes are made of clear stock primed in lead and oil. An extra deep rabbet means an extra amount of putty protection. Glass is set and pointed by hand, using large triangle tins and extra size tacks. And last but not least our hotbed sash are shipped from our Chicago warehouse, assuring better service than you could possibly obtain from any other point. Eastern customers especially should take this into consideration.

How to Make a Hotbed



Commuters and other country folk who are fond of Chinese Gardens, make your garden pay by making a Hotbed.

Illustration shows how simple it is to make a hotbed. You should dig your pit 2 ft. deep and as long as you wish to make the hotbed. Board up the sides with 1 in. or 1 1/4 in. lumber. The frame should be made in two sections. The lower section about 18 in. high all around, and the top section should be 16 in. at the back and 8 in. in the front. This will give a slope of 8 in. to shed the rain. Place fresh manure in the pit to a depth of about 18 or 20 inches, then put the hotbed sash on and let them remain for 3 or 4 days, then cover with soil as rich as you can get. Let it stand for 5 or 6 days longer, depending upon the temperature. Soil should be about 6 in. from the glass at the lowest point. Hotbeds should be made about two weeks before seeding.

Be sure and raise your sash a little every morning for ventilation, but not far enough so that the cold air can flow directly on the plants, and as soon as the sun sets close the sash over night to retain the heat. To obtain best results the bed should be given a southern exposure and be protected from the north wind.



Full Size Hotbed Sash

Size, 3 feet x 6 feet
1 1/8 inch thick

Clear Oregon Fir

No. 10-Z-1701. Single lots. Price each. \$4.20

No. 10-Z-1702. Dozen lots or more. Price each. \$4.10

No. 10-Z-1703. Lots of 50 or more. Price each. \$4.00

Shipping Weight, 60 Pounds

Prices of Open
Hotbed Sash

Clear Oregon Fir

No. 10-Z-1704. Price, single lots, Each. \$1.69

No. 10-Z-1705. Price in lots of 1 dozen or more. \$1.64

No. 10-Z-1706. Lots of 50 or more. Price each. \$1.58

Shipping Weight, 18 Pounds.

SPECIAL PRICES ON LOTS OF 100 OR MORE

Sash Bars

INSIDE SASH BAR

No. 10-Z-8435

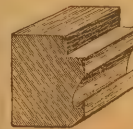
Used between Glass.
Size 1 1/2 x 2 1/2. Price per 100 running feet. \$5.20



END SASH BAR

No. 10-Z-8436

Used at end of Hotbed. Has but one square shoulder for sash to rest upon. Size 1 1/2 x 2 1/2. Price 100 running feet, \$5.20



Storm Sash and Doors—Buy Now!



Two Light Storm Sash

Glazed and Primed, Thickness 1 1/8 Inch
Storm Sash are great Fuel Savers. Manufactured of Clear California White Pine and guaranteed to be of the best manufacture. All sash are primed in a Linseed Oil compound, which makes painting much easier and the wood last longer. All listed sizes are carried in stock and we can ship

No. 10-Z-99	Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Single Strength	Price Glazed Double Strength
12x20	2-4 1/2 x 3-11 1/2	11 1/2	3 1/2	\$1.01	
12x22	2-4 1/2 x 3-7 1/2	11 1/2	3 1/2	1.12	
12x24	2-4 1/2 x 3-3 1/2	11 1/2	3 1/2	1.16	
12x28	2-4 1/2 x 3-3 1/2	11 1/2	3 1/2	1.35	
14x24	2-6 1/2 x 4-7 1/2	12 1/2	4 1/2	1.23	
14x28	2-6 1/2 x 4-3 1/2	12 1/2	4 1/2	1.60	
14x30	2-6 1/2 x 4-7 1/2	12 1/2	4 1/2	1.68	
16x20	2-8 1/2 x 3-11 1/2	13 1/2	3 1/2	1.21	\$1.40
16x22	2-8 1/2 x 3-7 1/2	13 1/2	3 1/2	1.23	1.54
16x24	2-8 1/2 x 3-3 1/2	13 1/2	3 1/2	1.38	1.62
16x28	2-8 1/2 x 3-3 1/2	13 1/2	3 1/2	1.60	1.82
16x30	2-8 1/2 x 3-7 1/2	13 1/2	3 1/2	1.63	1.93
16x32	2-8 1/2 x 3-7 1/2	13 1/2	3 1/2	1.78	2.32
18x32	2-8 1/2 x 5-11 1/2	14 1/2	5 1/2	1.90	2.48
18x36	2-8 1/2 x 6-7 1/2	14 1/2	6 1/2	2.06	2.70
18x20	2-10 1/2 x 3-11 1/2	15 1/2	3 1/2	1.33	1.56
18x24	2-10 1/2 x 4-7 1/2	15 1/2	4 1/2	1.54	1.80
18x28	2-10 1/2 x 4-3 1/2	15 1/2	4 1/2	1.70	1.90
18x30	2-10 1/2 x 4-7 1/2	15 1/2	4 1/2	1.80	2.03
18x32	2-10 1/2 x 4-7 1/2	15 1/2	4 1/2	1.81	2.08
18x36	2-10 1/2 x 5-11 1/2	15 1/2	5 1/2	2.02	2.32
20x20	2-0 1/2 x 3-11 1/2	16 1/2	3 1/2	1.50	1.82
20x22	2-0 1/2 x 3-7 1/2	16 1/2	3 1/2	1.71	2.00
20x24	2-0 1/2 x 3-3 1/2	16 1/2	3 1/2	1.71	2.09
20x28	2-0 1/2 x 3-3 1/2	16 1/2	3 1/2	1.79	2.32
20x30	2-0 1/2 x 3-7 1/2	16 1/2	3 1/2	1.89	2.35
20x32	2-0 1/2 x 3-7 1/2	16 1/2	3 1/2	2.01	2.56
20x36	2-0 1/2 x 4-3 1/2	16 1/2	4 1/2	2.23	3.12

Four Light Storm Sash

1 1/8 inches thick, made from Clear Soft Pine and carried in stock in the following sizes only. Prices do not include ventilators. If ventilators are wanted add 20c each extra.

No. 10-Z-91	Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Single Strength
10x20	2-1 1/2 x 3-11 1/2	11 1/2	3 1/2	\$1.50
10x22	2-1 1/2 x 3-7 1/2	11 1/2	3 1/2	1.70
10x24	2-1 1/2 x 3-3 1/2	11 1/2	3 1/2	1.83
10x26	2-1 1/2 x 3-3 1/2	11 1/2	3 1/2	1.94
10x28	2-1 1/2 x 3-3 1/2	11 1/2	3 1/2	2.15
10x30	2-1 1/2 x 3-7 1/2	11 1/2	3 1/2	2.38
12x20	2-3 1/2 x 3-11 1/2	13 1/2	3 1/2	1.68
12x22	2-3 1/2 x 3-7 1/2	13 1/2	3 1/2	1.80
12x24	2-3 1/2 x 3-3 1/2	13 1/2	3 1/2	1.97
12x26	2-3 1/2 x 3-3 1/2	13 1/2	3 1/2	2.10
12x28	2-3 1/2 x 3-3 1/2	13 1/2	3 1/2	2.24
12x30	2-3 1/2 x 3-7 1/2	13 1/2	3 1/2	2.39
12x32	2-3 1/2 x 3-7 1/2	13 1/2	3 1/2	2.56
12x36	2-3 1/2 x 4-3 1/2	13 1/2	4 1/2	2.94
14x20	2-5 1/2 x 3-11 1/2	15 1/2	3 1/2	1.92
14x22	2-5 1/2 x 3-7 1/2	15 1/2	3 1/2	2.16
14x24	2-5 1/2 x 3-3 1/2	15 1/2	3 1/2	2.30
14x26	2-5 1/2 x 3-3 1/2	15 1/2	3 1/2	2.44
14x28	2-5 1/2 x 3-3 1/2	15 1/2	3 1/2	2.60
14x30	2-5 1/2 x 3-7 1/2	15 1/2	3 1/2	2.76
14x32	2-5 1/2 x 3-7 1/2	15 1/2	3 1/2	2.93
14x34	2-5 1/2 x 3-7 1/2	15 1/2	3 1/2	3.09
14x36	2-5 1/2 x 4-3 1/2	15 1/2	4 1/2	3.27
15x30	2-11 1/2 x 3-7 1/2	16 1/2	3 1/2	3.18



10-Z-91—Four Light



10-Z-93—Eight Light

Eight Lights—Glazed and Primed

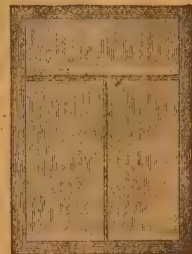
1 1/8 inches thick, made from Clear Soft Pine and carried in stock in the following sizes only. Prices do not include ventilators. If ventilators are wanted add 20c each extra.

No. 10-Z-93	Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Single Strength
8x10	1-9 1/2 x 3-11 1/2	10 1/2	3 1/2	\$1.40
9x12	1-11 1/2 x 3-7 1/2	12 1/2	3 1/2	1.60
10x12	2-1 1/2 x 3-7 1/2	11 1/2	3 1/2	1.70
10x14	2-1 1/2 x 3-3 1/2	11 1/2	3 1/2	1.88
10x16	2-1 1/2 x 3-3 1/2	11 1/2	3 1/2	2.00
12x16	2-3 1/2 x 3-3 1/2	13 1/2	3 1/2	2.22
12x18	2-3 1/2 x 3-7 1/2	13 1/2	3 1/2	2.60
14x16	2-5 1/2 x 3-11 1/2	15 1/2	3 1/2	2.96

Cottage Front Storm Sash

1 1/8 inches thick, made from Clear Soft Pine and carried in stock in the following sizes only. Prices do not include ventilators. If ventilators are wanted add 20c each extra.

No. 10-Z-90	Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Double Strength
40x40	40x14	3-8 1/2 x 5-1 1/2	1 1/2	\$5.32
40x42	40x14	3-8 1/2 x 5-3 1/2	3 1/2	6.15
40x40	40x16	3-8 1/2 x 5-3 1/2	3 1/2	7.09
40x44	40x16	3-8 1/2 x 5-7 1/2	7 1/2	
44x40	44x16	4-0 1/2 x 5-3 1/2	3 1/2	7.35
44x44	44x16	4-0 1/2 x 5-7 1/2	7 1/2	8.40
44x48	44x16	4-0 1/2 x 5-11 1/2	11 1/2	9.81
44x48	44x18	4-0 1/2 x 5-11 1/2	11 1/2	8.52
44x50	44x18	4-0 1/2 x 5-8 1/2	8 1/2	9.12



10-Z-90

Twelve Light Storm Sash

1 1/8 inches thick, made from Clear Soft Pine and carried in stock in the following sizes only. Prices do not include ventilators. If ventilators are wanted add 20c each extra.

No. 10-Z-92	Size of Glass	Will Fill Opening Width Ft. In.	Height Ft. In.	Price Glazed Single Strength
8x10	2-4 1/2 x 3-11 1/2	11 1/2	3 1/2	\$1.80
9x12	2-7 1/2 x 4-7 1/2	14 1/2	4 1/2	2.18
9x14	2-7 1/2 x 5-3 1/2	14 1/2	5 1/2	2.52
10x12	2-10 1/2 x 4-7 1/2	15 1/2	4 1/2	2.35
10x14	2-10 1/2 x 5-3 1/2	15 1/2	5 1/2	2.59
10x16	2-10 1/2 x 5-11 1/2	15 1/2	11 1/2	3.14
12x14	2-8 1/2 x 4-3 1/2	13 1/2	4 1/2	3.38
12x16	2-8 1/2 x 4-3 1/2	13 1/2	4 1/2	3.50
12x18	2-8 1/2 x 4-3 1/2	13 1/2	4 1/2	4.10



10-Z-92

SHIPPING WEIGHT OF STORM SASH

Two Light Storm Sash Weigh Approximately.....	30 Pounds
Four Light Storm Sash Weigh Approximately.....	28 Pounds
Eight Light Storm Sash Weigh Approximately.....	28 Pounds
Twelve Light Storm Sash Weigh Approximately.....	30 Pounds
Three Light Storm Sash Weigh Approximately.....	50 Pounds



No. 10-Z-1720

Ventilators in Bottom, 20 cents extra.

Storm Doors

GOOD QUALITY "B" GRADE

Thickness 1 1/8 Inches

In the Natural Wood Ready for Paint

Size of regular door Ft. & In.	Size of Storm Door Ft. & In.	10-Z-1720	10-Z-1721	Shipping Weight Pounds
2-6 1/2 x 6-12	6 1/2 x 6-8	3.87	\$5.02	80
2-8 1/2 x 6-12	8 1/2 x 6-8	4.14	5.29	85
2-8 1/2 x 0-8	8 1/2 x 7-1	4.47	5.62	78
2-10 1/2 x 0-8	10 1/2 x 6-11	4.69	5.74	60
2-10 1/2 x 0-8	10 1/2 x 7-1	4.80	5.95	75
3-0 1/2 x 0-8	0 1/2 x 7-1	4.86	6.01	80



No. 10-Z-1721

Combination Screen and Storm Doors



SPECIAL
SIZES
AND
DESIGNS
QUOTED
ON
APPLICA-
TION

BUY one and save time, money and labor. An opportunity to procure two doors at the cost of one. Our Combination Screen and Storm Doors are of the very latest construction. They are equipped with improved metal fasteners, which make changing from Screen Door to Storm Door very simple. There are no screws, bolts or nails to bother with. By the old method, two hours' work or more is required to take a door off its hinges and put on another in place. Our Combination Doors have reduced this time of operation to a few minutes, and it is so simple that a child can make the change.

Our "Leader" door is only carried in stock painted Gray. The Presto Change Doors are furnished not finished, also finished in oil and varnish. We use nothing but White Pine in the manufacture of our combination doors.

"Leader" Combination Screen and Storm Door

A good substantial door, made from our surplus stock of White Pine Lumber used in the manufacture of our high-grade Doors, which will not pass our critical inspection for oil finish, but which is very satisfactory for paint. These doors are made with stiles $1\frac{1}{8} \times 3\frac{3}{4}$. The opening for the storm and screen sections is $43\frac{3}{4}$ inches high in all doors. The storm section is divided into four (4) lights, and is glazed with Single Strength Glass, while the Screen Section is covered with 12-mesh Black Wire. We carry these doors in stock Painted Gray ONLY.

PRICES

Regular Door Size, Ft. In. Ft. In.	Our "Leader" Door Size, Ft. In. Ft. In.	Prices, Ea., Pt. Gray. 10-Z-1753
2-6 x6-6	2-6 $\frac{1}{4}$ x6-7	\$5.82
2-8 x6-8	2-8 $\frac{1}{4}$ x6-9	6.10
2-8 x7-0	2-8 $\frac{1}{4}$ x7-1	6.16
2-10 x6-10	2-10 $\frac{1}{4}$ x6-11	6.24
2-10 x7-0	2-10 $\frac{1}{4}$ x7-1	6.30
3-0 x7-0	3-0 $\frac{1}{4}$ x7-1	6.59

Presto-Change Improved Wonder Door

TWO HIGH GRADE DOORS FOR THE PRICE OF ONE

PRESTO-CHANGE Doors are made of Clear White Pine, being $1\frac{1}{8}$ inches in thickness. All joints are mortised and tenoned. Steel Dowels prevent sagging. The sections are made as strong as the door itself, with mortised and tenoned joints, glued and pinned. Each door is furnished with two removable sections of the same size; one being the storm section, and the other the screen section. The storm section can be furnished in two different designs as illustrated—"A" and "AA"—and the screen section in one style. The opening for the removable panels is 4 feet $8\frac{1}{2}$ inches high in all doors. The removable sections and openings in door are both rabbeted so that when section is in place there is a double lap joint which, together with improved fasteners, makes the door dust-proof and weather-proof.

These doors are made up and carried in stock for the following standard door sizes. Mention size when ordering.

Each door includes Glass Storm Section and Galvanized Wire Screen Section.

PRICES

Regular Door Size Ft.—In.	"Presto- Change" Door Size Ft.—In.	10-Z-1750 With Storm Section "A" Clear W. Pine Not Varnished	10-Z-1751 With Storm Section "AA" Clear W. Pine Not Varnished
2' 8"x6' 8" ...	2' 8"x6' 9" ...	\$6.91	\$7.38
2' 8"x7' 0" ...	2' 8"x7' 1" ...	7.02	7.50
2' 10"x6' 10" ...	2' 10"x6' 11" ...	7.16	7.58
2' 10"x7' 0" ...	2' 10"x7' 1" ...	7.18	7.61
3' 0"x7' 0" ...	3' 0"x7' 1" ...	7.47	7.77

Shipping Weight approximately 75 Pounds

These prices are f.o.b. cars Chicago or Wisconsin factory. Doors will be packed and crated with screen section in place and storm section separate.

We make combination screen and storm doors in any size and design, and if our designs do not meet with your approval, send us a cut or description of what you want, and we will name you a price that will mean a saving to you.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.



"Presto-Change"
With Storm Section "A"
in Place
No. 10-Z-1750

"Presto-Change"
With Screen Section
in Place

"Presto-Change"
With Storm Section
"AA" in Place
No. 10-Z-1751

Big Values in Rugs and Floor Coverings!! Ask for Our New Furniture Book. 57

Stock Size Window Screens

DEPENDABLE QUALITY

Order Now—Quick Shipment

Full Size Window Screens at Wholesale Prices.

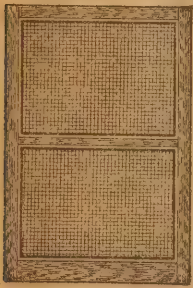
Almost one hundred (100) popular sizes from which to make your selection. Protect your health and home with high-grade screens, at **lower-than-ever-prices**. Steal a march on the "Fly" and send us your order Right Now. A few minutes of time now will save you weeks of delay and anxiety later on during the rush season. Made from thoroughly kiln dried Lumber. Wide 2 in. tiles and top rails and 3 in. bottom rails which are added features. The joints are mortised and tenoned in order to prevent warping and sagging. The wire used, either Black, Galvanized or Copper Bronze, is of the highest grade and is stretched and fas-

tened to the frame with a beaded moulding which is neatly mitred and fitted in place, producing a well made, substantial screen.

Our Black Wire Screens will stand the weather better, and will last longer than any other Black Wire Screen on the market, providing it is given a coat of our Black Mineral Paint every year. Our Copper Bronze Wire Screens will never rust, and will give satisfactory service for years without painting.

For Special and Intermediate sizes see our Made-to-Order Window Screens.

Two Light Window Screen



90c AND UP

These screens are made full size and will cover entire window. Prices shown are for Black, Galvanized and Cop-

per Bronze Wire. They are 1½" thick.

Special: The Black Wire used in the manufacture of our screens is a High-Grade Steel Wire covered with Black Enamel. Our Galvanized Wire is a High-Grade Steel Wire heavily galvanized. The Copper Bronze Wire is a composition of Copper and Bronze, which produces a durable and non-rusting wire. All the Wire is Standard 12-Mesh.

All screens covered with black wire are furnished painted black. Balance can be furnished not painted or painted black. If you want the screens painted gray or white, write for special prices.

Full Size Screens 1½-inch Thickness To Fit Two-Light Windows

Shipping Weight Approximately 18 Pounds

Size of Glass in Windows 2 Lights	Will Fill Opening Ft. In. Ft. In.	10-Z-527 Covered with Black Wire	10-Z-528 Covered with Galvanized Wire	10-Z-529 Covered with Copper Bronze Wire	Size of Glass in Windows 2 Lights	Will Fill Opening Ft. In. Ft. In.	10-Z-527 Covered with Black Wire	10-Z-528 Covered with Galvanized Wire	10-Z-529 Covered with Copper Bronze Wire
12x20	1 4½x3 11½	\$0.90	\$1.20	\$2.85	26x24	2 6½x4 7½	\$1.40	\$1.75	\$4.38
12x24	1 4½x4 7½	.92	1.22	2.88	26x26	2 6½x4 11½	1.50	1.88	4.70
12x28	1 4½x5 3½	.93	1.23	2.90	26x28	2 6½x5 3½	1.60	2.00	4.85
12x30	1 4½x5 7½	.94	1.24	2.92	26x30	2 6½x5 7½	1.70	2.12	5.81
14x20	1 6½x3 11½	.95	1.25	2.94	26x32	2 6½x5 11½	1.80	2.25	5.68
14x24	1 6½x4 7½	.96	1.26	2.96	28x20	2 8½x3 11½	1.28	1.60	4.01
14x28	1 6½x5 3½	.98	1.28	2.98	28x24	2 8½x4 7½	1.50	1.87	4.70
16x20	1 8½x3 11½	1.00	1.29	3.00	28x26	2 8½x4 11½	1.60	2.00	8.50
16x24	1 8½x4 7½	1.02	1.30	3.02	28x28	2 8½x5 3½	1.71	2.14	5.84
16x28	1 8½x5 3½	1.04	1.30	3.04	28x30	2 8½x5 7½	1.82	2.28	5.69
16x30	1 8½x5 7½	1.07	1.32	3.33	30x24	2 10½x4 7½	1.92	2.40	6.00
18x20	1 10½x3 11½	1.14	1.43	3.57	30x26	2 10½x4 11½	1.59	1.99	4.97
18x24	1 10½x4 7½	.96	1.29	3.00	30x28	2 10½x5 3½	1.70	2.12	5.81
18x26	1 10½x4 11½	1.03	1.29	3.21	30x30	2 10½x5 7½	1.82	2.27	5.69
18x28	1 10½x5 3½	1.07	1.34	3.35	30x32	2 10½x5 11½	1.93	2.41	6.03
18x30	1 10½x5 7½	1.18	1.47	3.68	32x24	3 0½x4 7½	2.04	2.53	6.38
20x20	2 0½x3 11½	1.25	1.58	3.90	32x26	3 0½x4 11½	1.68	2.10	5.25
20x24	2 0½x4 7½	.96	1.29	3.60	32x28	3 0½x5 3½	1.80	2.25	5.63
20x26	2 0½x4 11½	1.12	1.40	3.50	32x30	3 0½x5 7½	1.92	2.40	6.00
20x28	2 0½x5 3½	1.28	1.60	3.95	32x32	3 0½x5 11½	2.04	2.55	6.38
20x30	2 0½x5 7½	1.36	1.70	4.25	36x24	3 4½x4 7½	2.16	2.70	6.75
22x20	2 2½x3 11½	1.04	1.30	3.26	36x26	3 4½x4 11½	1.87	2.34	5.85
22x24	2 2½x4 7½	1.22	1.63	3.81	36x28	3 4½x5 3½	2.00	2.50	6.25
22x26	2 2½x4 11½	1.26	1.58	3.95	36x30	3 4½x5 7½	2.27	2.82	7.10
22x28	2 2½x5 3½	1.39	1.73	4.34	36x32	3 4½x5 11½	2.40	3.00	7.50
22x30	2 2½x5 7½	1.48	1.85	4.62	40x24	3 8½x4 7½	2.06	2.58	6.44
24x18	2 4½x3 11½	1.03	1.28	3.21	40x26	3 8½x4 11½	2.20	2.75	6.87
24x22	2 4½x4 7½	1.12	1.40	3.50	40x28	3 8½x5 3½	2.35	2.94	7.35
24x24	2 4½x4 11½	1.23	1.54	3.81	40x30	3 8½x5 7½	2.50	3.13	7.80
24x26	2 4½x4 11½	1.31	1.64	4.10	40x32	3 8½x5 11½	2.64	3.30	8.25
24x28	2 4½x5 3½	1.40	1.75	4.38	44x24	4 0½x4 7½	2.24	2.80	7.01
24x30	2 4½x5 7½	1.45	1.81	4.63	44x26	4 0½x5 3½	2.56	3.20	8.00
24x32	2 4½x5 11½	1.59	1.99	4.97	44x28	4 0½x5 7½	2.72	3.40	8.51
		1.68	2.10	5.25	44x30	4 0½x5 11½	2.88	3.60	9.00

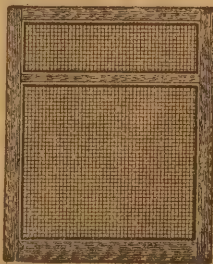
For prices on Half-Size Window Screens see our Made-to-Order Screens, priced and described on page 5.

Four Light Window Screens

\$1.68 AND UP Full Size Screens to fit Four Light Windows. Thickness 1½ in., priced with black, galvanized and copper bronze wire.

Shipping Weight Approximately 18 Pounds

Size of Glass in Windows Four Lights	Will Fill Opening Ft. In. Ft. In.	10-Z-527 Covered with Black Wire	10-Z-528 Covered with Galvanized Wire	10-Z-529 Covered with Copper Bronze Wire
10x20	2 1x3 11½	\$1.63	\$1.95	\$3.26
10x24	2 1x4 7½	1.98	2.30	3.81
10x26	2 1x4 11½	2.10	2.42	4.05
10x28	2 1x5 3½	2.25	2.60	4.34
10x30	2 1x5 7½	2.40	2.78	4.62
12x20	2 5x3 11½	1.95	2.25	3.75
12x24	2 5x4 7½	2.27	2.63	4.38
12x26	2 5x4 11½	2.45	2.82	4.70
12x28	2 5x5 3½	2.60	3.00	5.00
12x30	2 5x5 7½	2.76	3.18	5.16
12x32	2 5x5 11½	2.93	3.38	5.63
14x20	2 9x3 11½	2.21	2.55	4.25
14x24	2 9x4 7½	2.58	2.99	4.97
14x26	2 9x4 11½	2.76	3.18	5.31
14x28	2 9x5 3½	2.96	3.42	5.69
14x30	2 9x5 7½	3.14	3.62	6.03
14x32	2 9x5 11½	3.32	3.83	6.38



Cottage Window Screens

Shipping Weight Approximately 18 Pounds

Full Size Screens to Fit Cottage Windows, thickness 1½ in. Made like cut. Priced with black, galvanized and copper bronze wire.

Size of Bottom Glass in Windows	Size of Top Glass in Windows	Will Fill Opening Ft. In. Ft. In.	10-Z-527 Covered with Black Wire	10-Z-528 Covered with Galvanized Wire	10-Z-529 Covered with Copper Bronze Wire
40x40	40x16	3-8x5- 3½	\$3.81	\$4.40	\$7.34
40x42	40x14	3-8x5- 2½	3.81	4.40	7.34
40x44	40x16	3-8x5- 7½	4.05	4.67	7.80
44x40	44x16	4-0x5- 3½	4.16	4.38	8.00
44x44	44x16	4-0x5- 7½	4.41	5.10	8.51
44x48	44x16	4-0x5-11½	4.68	5.40	9.00
44x50	44x18	4-0x6- 3½	4.94	5.70	9.50

Durable Porch Screens

\$1.10 PER FT. AND UP

Here is your opportunity to enjoy Spring and Summer air right on your porch. Plan that extra sitting room on the front porch and that breakfast room on the rear porch right now. These Porch Screens are 1½ in. thick, and are made to order only.

Height of Opening to be Filled	10-Z-553 Price per Linear or Running Foot Black Wire	10-Z-554 Price per Linear or Running Foot Galvanized Wire	10-Z-562 Price per Linear or Running Foot Copper Bronze Wire
6 feet	\$1.20	\$1.26	\$2.16
8 feet	1.60	1.68	2.88
9 feet	1.80	1.89	3.24
10 feet	2.00	2.10	3.60

Furnished in Black Wire, Galvanized and Copper-Bronze Wire.

High Grade Screen Doors

The lumber used in the manufacture of our Door and Window Screens is carefully selected for the purpose, thoroughly seasoned and kiln dried.

BEST CONSTRUCTION

In the manufacture of Screens, our factory uses great care not only in the selection of material but in putting it together. All our Doors are made with dowel joints and we use heavy hardwood corrugated dowels, well glued. They are much stronger than the ordinary screen doors, sold by retailers. The cross rails are blind-tenoned into the stiles and not mortised through, giving the water no chance to soak in, therefore prevents rotting.

While screens are primarily an article of necessity and not intended for ornamentation, nevertheless, we believe in making our designs as neat and attractive as possible. The wire cloth is put on by special machinery, stretched drum-head tight and securely tacked. Covered with bead mould, except the "Mission" and "Supreme" doors which have raised mitred mouldings. The black enamel cloth that we use is made from hard steel wire, coated with a durable enamel, baked on. If repainted occasionally, it will last for years.

The Aluminoid Rustless wire cloth furnished for our "Supreme" Doors is made of very hard steel wire, electroplated with a rust-proof composition of zinc and aluminum. It is finished with a high grade transparent weather-resisting varnish and far exceeds ordinary galvanized cloth in wearing qualities.

The Antique Bronze wire cloth is made from 90 per cent pure copper-finished in rich antique color which requires no painting. It will not rust and we recommend its use in preference to bright copper cloth on account of its subdued color.

All Doors shown here are made with stiles and rails, 1½ inches thick and manufactured from choice selected Soft Arkansas Pine lumber, with the exception of No. 10-Z-526, which is made of kiln-dried Oak.

"POPULAR"—10-Z-501

Our Screen Doors Weigh Approximately 55 Pounds Shipping Weight

"COTTAGE"—10-Z-502

Width.	Height.	Price, Each
2' 6" x 6' 6"	\$2.79
2' 8" x 6' 8"	2.90
2' 10" x 6' 10"	3.06
2' 8" x 7' 0"	2.93
2' 10" x 7' 0"	3.12
3' 0" x 7' 0"	3.20

"POPULAR" Screen Door 10-Z-501 is made of selected Soft Arkansas Pine, Stained Walnut. Covered with Black Wire Cloth. Stiles and rails 1½ inches thick.

"COTTAGE" Screen Door 10-Z-502 is made of selected Soft Arkansas Pine, Finished Natural, two coats varnish. Covered with Black Wire Cloth. Stiles and rails 1½ inches thick.

Width.	Height.	Price, Each
2' 6" x 6' 6"	\$3.67
2' 8" x 6' 8"	3.53
2' 10" x 6' 10"	3.39
2' 8" x 7' 0"	3.92
2' 10" x 7' 0"	4.06
3' 0" x 7' 0"	4.16

"FAVORITE"

No. 10-Z-513
1½-inch thick. Made of Selected Soft Arkansas Pine—Finished Natural. Two Coats Varnish. Covered with Black Wire Cloth.

Width.	Height.	Each
2' 6" x 6' 6"	\$3.50
2' 8" x 6' 8"	3.63
2' 10" x 6' 10"	3.80
2' 8" x 7' 0"	3.74
2' 10" x 7' 0"	3.84
3' 0" x 7' 0"	3.93

"MISSION"

Made of Selected Soft Arkansas Pine, 1½-inch thick. Very Substantial. Finished Natural. Two Coats Extra Quality Varnish.

No. 10-Z-505. Covered with Black Wire Cloth.

Width.	Height.	Each
2' 6" x 6' 6"	\$4.84
2' 8" x 6' 8"	5.13
2' 10" x 6' 10"	5.37
2' 8" x 7' 0"	5.24
2' 10" x 7' 0"	5.46
3' 0" x 7' 0"	5.57

No. 10-Z-505½. Covered with Galvanized Wire Cloth.

Width.	Height.	Each
2' 6" x 6' 6"	\$5.46
2' 8" x 6' 8"	5.50
2' 10" x 6' 10"	5.82
2' 8" x 7' 0"	5.61
2' 10" x 7' 0"	5.83
3' 0" x 7' 0"	6.00

"MISSION"

"SUPREME"

(With solid raised panel)
No. 10-Z-525. Selected Soft Arkansas Pine, 1½ inch thick. Finished Natural. Two Coats Extra Quality Varnish. Aluminoid Rustless Wire Cloth.

Width.	Height.	Each
2' 8" x 6' 8"	\$4.61
2' 10" x 6' 10"	5.03
2' 8" x 7' 0"	4.89
2' 10" x 7' 0"	5.10
3' 0" x 7' 0"	5.23

"SUPREME"

SOLID OAK

The Screen Door of Quality

No. 10-Z-526. Made of Kiln-dried Oak. In the white (unfinished) or golden gloss finish. 1½ inch thick. Very strong and substantial. Antique Bronze Wire Cloth. Extremely distinctive in appearance.

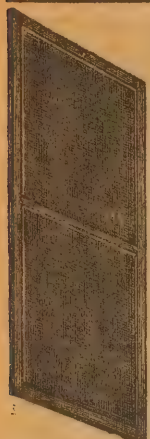
Width.	Height.	Each
2' 8" x 6' 8"	\$10.95
3' 0" x 7' 0"	11.40

"SUPREME"

Our Screen Doors Weigh Approximately 55 Pounds Shipping Weight

Best Made to Order Window Screens

"STANDARD" WINDOW SCREENS



Our "STANDARD" Window Screens are well made from carefully selected materials. Close-fitting joints. Strongly built in every way.

Save you doctor bills, save the lives of yourself and children. Danger lurks in the hairy, clinging feet of the common house fly. Millions of disease breeding germs are carried into your home, contaminating your food, and the entire list of ravaging fevers are liable to follow, to which children are especially susceptible. And not only that, but what a nuisance they are. Shut out these pests, and keep them out by using our custom-made screens.

"STANDARD" Screens are made to order only, either full size or half size. The half screens are grooved at the sides for slides. Slides are included in the prices quoted. Furnished in three grades of wire as listed.

Our "STANDARD" Window Screens are furnished painted Black or Unpainted.

PRICES PER SQUARE FOOT FOR WINDOW SCREENS MEASURING FROM OUTSIDE TO OUTSIDE

No.	Thickness	
10-Z-506. Full size, Black Wire Cloth.....	7/8"	18c
10-Z-507. Half size, Black Wire Cloth.....	7/8"	18 1/2c
10-Z-508. Full size, Black Wire Cloth.....	1 1/8"	19c
10-Z-509. Half size, Black Wire Cloth.....	1 1/8"	20c
10-Z-510. Full size, Galvanized Wire.....	7/8"	20c
10-Z-511. Half size, Galvanized Wire.....	7/8"	21c
10-Z-512. Full size, Galvanized Wire.....	1 1/8"	21c
10-Z-513. Half size, Galvanized Wire.....	1 1/8"	22c
10-Z-514. Full size, Coppered Bronze Wire.....	7/8"	36c
10-Z-515. Half size, Coppered Bronze Wire.....	7/8"	37c
10-Z-516. Full size, Coppered Bronze Wire.....	1 1/8"	38c
10-Z-517. Half size, Coppered Bronze Wire.....	1 1/8"	39c

No screen covered with Black Wire furnished for less than \$1.45.

No screen covered with Galvanized or Aluminoid Wire furnished for less than \$1.60.

No screen covered with Bronze or Copper Wire furnished for less than \$2.88.

HALF SIZE
SCREENS
WINDOW
WITH
GROOVED
STYLES AND
LOOSE
SLIDES



HOW TO ORDER WINDOW SCREENS

When ordering Full Size Screens, measure exact space that the screen is to occupy—the width between the outside casings and the height from the sill to the top or head casing. For Sliding (Half-size) Screens, measure width between blind stops (the wood strips that hold the outside sash in place) and the height will be the distance from the sill to the upper sash at the point where the glass joins the wood.

Prices given here are per square foot. Multiply width by height, using extreme measure over wood and wire both.

SCREEN WINDOW STOCK

TOP, SIDE AND CENTER RAIL



No. 10-Z-595. Size 3/4x1 1/4 inches. \$2.10
Price per 100 lineal feet.....

GROOVED STILE FOR HALF SCREENS



No. 10-Z-597. Size 3/4x1 1/4 inches. \$2.10
Price per 100 lineal feet.....

The various items of screen moulding shown on this page are made of thoroughly kiln-dried stock. Soft White Pine, Fir or Cypress are the best known woods for exterior use on account of their weather defying qualities. This material is smoothly run, is absolutely clear and is made in standard sizes. All this screen material is carried in stock in random lengths, and if wanted cut to specified lengths, add 10% extra to listed prices.



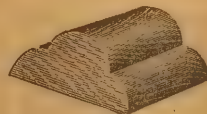
BOTTOM RAIL

No. 10-Z-596. Size 3/4x2 1/4 inches. \$3.35
Price per 100 lineal feet.....



This screen slide is used on half window screens and fits into the groove shown in grooved stile.

No. 10-Z-599. Screen slide size, 1/4x1 1/2 in. Price per 100 lineal ft. \$1.05



Screen Moulding for covering screen wire where nailed to edges of stile and rails.

No. 10-Z-598. Screen Moulding. Prices per 100 lineal feet, 3/4x1 1/2 inches 85c

"FLI-PROOF" ADJUSTABLE WINDOW SCREENS

This is the most satisfactory Adjustable Window Screen made. Material and workmanship are the best and the new method of center metal bars makes this screen absolutely fly-proof. Made of Selected Hard Wood, finished in Oak. Beaded both sides. Covered with Black Wire Cloth. Can be adjusted to fit any width window between open and closed sizes given.

Our Adjustable Screens are shipped direct from our Michigan factory, packed and crated in dozen lots of the same size and sold only by the dozen at the prices named.

One dozen in two different sizes, one-half dozen each, 25c extra

Size, Closed Inches	Size, Open Inches	Height Inches	Price Per Dozen
20	33	9	\$4.78
20	33	12	5.45
20	33	15	6.55
20	33	18	7.05
20	33	22	8.55
20	33	24	9.00
22	37	24	10.05
22	37	28	11.85
20	33	30	10.95
22	37	30	12.90
28	45	30	14.40
22	37	32	13.50
22	37	36	14.75
28	45	36	16.80

No. 10-Z-519



Screen Door Sets

4-Z-3673. Consists of one pair heavy hold back spring hinges, Japanned finish, one steel door pull, one hook and screw eye. Per set..... 22c



Screen Door Catches

4-Z-3675. Vienna bronze finish, suitable for doors 7/8 to 1 1/2 inch thick, complete with screws. Price, each..... 22c

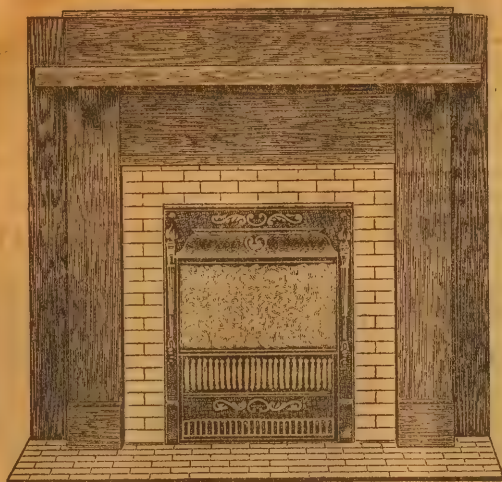


Malleable Iron Hangers

For full size Window Screens. 4-Z-2006. Price per pair, with screws..... 25c
For description, see Hardware Section of Catalog.



MANTELS OF VERY ATTRACTIVE DESIGNS



Very Neat and Artistic

10-Z-848. Mantel, woodwork only. **\$11.25**
 Price, Oak
 10-Z-849. Mantel, woodwork only. **\$12.10**
 Price, Mahogany

SPECIFY OAK OR MAHOGANY

A **STONE** or brick mantel cannot find its proper place in a room in which it is the only material of its kind used, and it is out of harmony with the rest of the decorations. The mantel should really harmonize with its surroundings, its lines as well as its structural material, should be made as nearly as possible in accordance with the general style of the room. The importance of the wood mantel in furnishing the home cannot be over-estimated. A badly designed piece of furniture can easily be removed, but the mantel cannot be; hence the importance of your selection.

A few years ago, in some sections of the country, a sentiment gained ground that fireplaces were not needed, as most houses contained different kinds of furnaces, which supplied the want, and some people being quick to adopt new suggestions, commenced to eliminate fireplaces and chimneys from their homes. However, if anyone doubts that this was a mistake, ask any one of your neighbors who have built a house without a fire-place, and they will tell you it was the saddest mistake in the building of their home.

Selected Oak or Birch Mahogany, 56 in. high, 56 to 60 in. wide. Tile opening, 36x36 in. or 42x36 in. Projection, 3¾ in. Royal Gloss finish. This pattern is somewhat similar to others shown, except the broad stiles in front, rather than the use of the column or pilaster.

Neat, attractive looking, and the price is very low. It should certainly not be missed from one of your bed rooms.

This Mantel can also be furnished with flat jambs—no profile—without additional cost. Shipping weight, 90 pounds.

REMEMBER: All our mantels, including the above, can be furnished in the white just as they come from the final sandpapering—no varnish or stain—so you can finish them to match your interior finished woodwork. **WRITE FOR PRICES.**

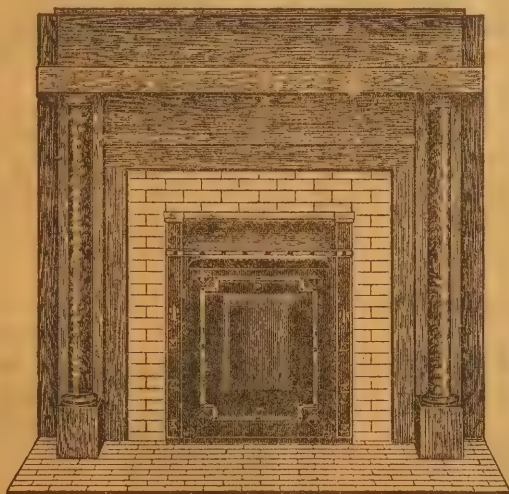
THE MANTEL BELOW

Selected Oak or Birch Mahogany, 57 in. high, 57 to 60 in. wide, 36x36 in. or 42x39 in. tile opening. Projection, 3¾ in. Royal Gloss finish.

One of the best of its kind made.

It is large—made in both selected Oak, with Quartered Oak columns and shelf front, and in Birch Mahogany, and finished in best Royal Gloss finish.

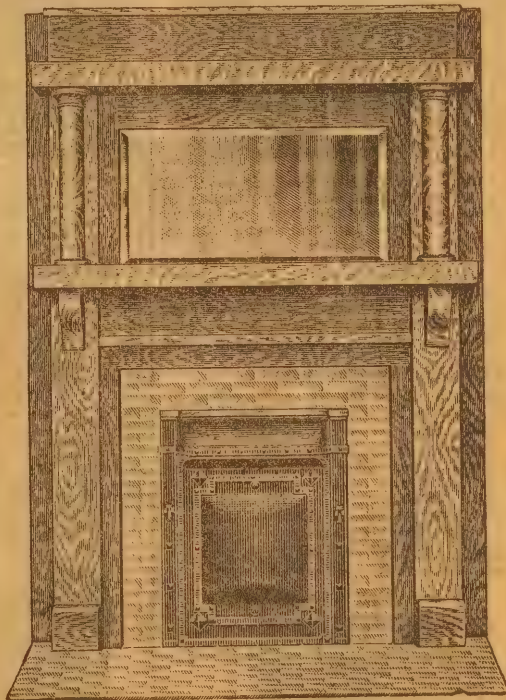
It is one that you will be proud of, wherever it is put. Consider it very carefully.



An Elegant Medium Priced Base

10-Z-844. Mantel, woodwork only. **\$18.25**
 Price, oak
 10-Z-845. Mantel, woodwork only. **\$19.50**
 Price, Mahogany

SPECIFY OAK OR MAHOGANY



A Reasonably Priced Mantel

Selected Oak or Birch Mahogany. Two different size mirrors. 78 inches high, 54 to 60 in. wide. Tile opening, 36x36 or 42x36 in. Projection, 3¾ in. Royal Gloss Finish.

One of the largest low priced mantels we make.

Designed especially for those who want a large mantel at a small price.

Workmanship, finish, and general character, are the same as our best Mantels. The box fronts, columns and brackets under lower shelf are all genuine quartered oak. Will fit into any room nicely. Shipping weight, 210 pounds.

10-Z-837. Mantel, woodwork and mirror only, 16x28. **\$31.50**
 Price
 10-Z-838. Mantel, woodwork and mirror only, 18x36. **\$36.35**
 Price

OAK ONLY

DEPENDABLE FIREPLACE OUTFIT

Quality the Very Best Throughout

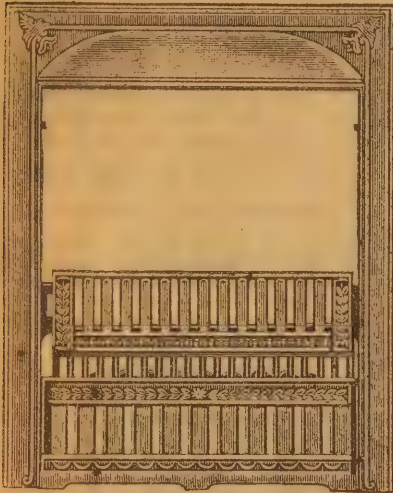
Do not make a mistake and buy a grate without seeing how it is built, the damper, the ash dump and above all the Fire Clay Linings. A careful comparison of our full line of Grates and fireplace fixtures is invited. You can absolutely depend upon the price as being the lowest, material of the best according to its kind. All of our grate outfits are new designs, modern in style, matching perfectly with our line of modern mantels, containing the latest improved ventilating and regulating devices. They are outfits very much desired, and, therefore are in great

demand. We will furnish any of our outfits in either oxidized copper, oxidized brass or brush brass and all take the same price.

Neither the fire brick or cement are included in any of our quotations nor do we furnish same, for they can generally be purchased to a better advantage locally on account of heavy freight charges.

Please read our descriptions and specifications carefully, to prevent error in ordering. We guarantee that all of our fixtures and grates are manufactured in the very best manner, and also guarantee safe delivery.

\$9.35 Buys Our Combination
"RELIABLE" GRATE
Burns Wood or Coal



Our "Reliable" Combination Grate is excellent for burning wood and soft coal. The basket or firepot is made from heavy cast iron and is very serviceable. The frame has projecting canopy at top, as shown in illustration.

This grate is intended to be used where the back and sides are built from brick by the mason contractor right on the job.

A summer front for this grate is furnished and is made of ornamental steel; cannot break, very much superior to the old fashioned cast iron kind.

RELIABLE GRATE OUTFIT

- 10-Z-1022 Reliable Grate 24½ in. wide x 30½ in. high, with firepot 20 in. wide x 9 in. deep; Berlin Black Finish. Price.....\$9.35
- 10-Z-1023 Reliable Grate 30½ in. wide x 30½ in. high, with firepot 20 in. wide x 9 in. deep; Berlin Black Finish. Price.....\$11.95
- Plated Finish, Extra.....\$1.75
- Shipping weight, 80 pounds.

\$17.95 Buys This Combination
"MAJESTIC" GRATE
Burns Wood or Coal



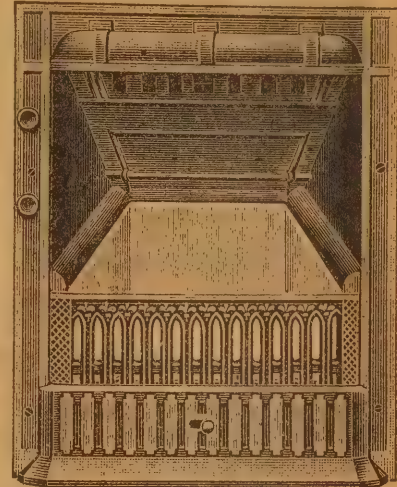
Our "Majestic" Double Damper Mounted Grate invariably gives perfect satisfaction. It is a beautiful ornament and the material is of the very best. It consists of a heavy cast iron body forming the fire chamber, and provided with upper and lower dampers and dumping grate bottom. The dampers are controlled by levers operating from the front of fireplace. The adjustment of the dampers is positive and precise. The back of the fire receptacle, the point exposed to the most intensive heat is provided with fire-proof slab of tile, so arranged as to permit of easy replacement, without disturbing the balance of the grate. The grate bottom is balanced so as to operate readily under the pressure of a poker.

The arrangement of the double damper gives perfect control to the draft and fire.

MAJESTIC GRATE OUTFIT

- 10-Z-1736. Majestic Grate, 24½ in. wide by 30½ in. high, with firepot 20 in. wide x 9 in. deep; Berlin Black Finish, Steel Summer Front included. Price.....\$17.95
- 10-Z-1737. Majestic Grate, 30½ in. wide by 30½ in. high, with firepot 20 in. wide x 9 in. deep; Berlin Black Finish, Steel Summer Front included. Price.....\$20.55
- Extra for Plated Finish \$1.75.
- Shipping Weight 190 pounds.

\$23.95 The Very Best Made
"RADIANT" GRATE
Burns Wood or Coal



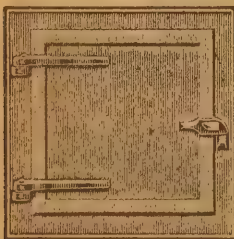
In presenting our RADIANCE Double Damper Mounted Grate, we show a grate that really has no comparison. The leading feature of the Radiance Mounted Grate consists of the heavy cast iron body forming the capacious fire chamber. This body is capable of great heat resistance, and is provided with two controlling dampers, one the upper damper, and the other the lower direct damper. These dampers are operated from the front of fireplace by worm gear controls with positive and precise adjustment at any point. The checks and back of fireplace consist of fire-proof tile slabs, so arranged as to permit of easy replacement without disturbing the balance of the grate. The fire bottom is provided with finger grate bars, geared together and opposed so that the shaker handle operates the whole set at one motion. In addition the basket front and crown piece are provided with damper slides.

RADIANCE GRATE OUTFIT

- 10-Z-1436. Radiance Grate 24½ in. wide x 30½ in. high, with firepot 20 in. wide x 9 in. deep; Berlin Black Finish. Price.....\$23.95
- 10-Z-1437. Radiance Grate 30½ in. wide x 30½ in. high, with firepot 24 in. wide x 9 in. deep; Berlin Black Finish. Price.....\$25.95
- Plated Finish \$1.75 Extra.
- Shipping weight 200 pounds.

ASH PIT DOORS

Very High Grade



Extra Strong Catch Special Size Hinges

Ash Pit Door including frame made with flanges to hold it securely in the brick work of the chimney.

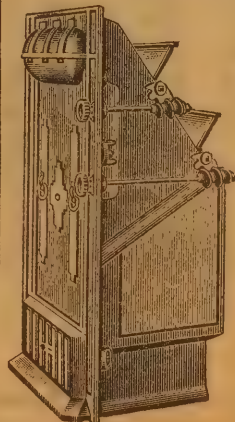
- 10-Z-2135 Price
- 10"x12" inside\$2.85
- 12"x12" inside2.85
- 12"x16" inside3.95
- Shipping weight 20 pounds.



Sectional View of "MAJESTIC" GRATE

Illustration shows the side view of the damper attachment and back lining of firepot.

Please note the arrangement of the two dampers and the durable construction of the firepot. These are important features.



Sectional View of "RADIANT" GRATE

Illustration shows arrangement of damper fire tile and general construction of our Radiance Grate.

Attention is called to the rear section showing the arrangement of the two dampers and the heavy fire clay linings.

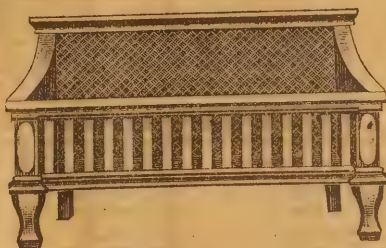
SUPERB FIREPLACE FIXTURES

A Wide Selection

In planning the modern home, the owner has it in his power to add immeasurably to the beauty and comfort of the interior by a careful selection of the fireplaces, their proper construction, design and equipment. The equipment of the fireplace must harmonize not only with its design, but must also tone in with the general effect desired. With the foregoing in mind, the prospective buyer will recognize the spirit and purpose manifested in the selection of portable baskets, and-

irons and accessories here presented. Each design has been carefully chosen, with special reference to its decorative value. The wide range of selection offered in the different patterns caters to every taste and at the same time conforms to present-day tendencies in architectural design.

Basket Grates are for use in open fireplaces and any kind of fuel may be burned in them. All of our basket grates are made with dumping bottom, all Berlin Black Finish.



Number	Width Across Front	Price
10-Z-2124	20 inches	\$ 9.60
10-Z-2125	22 inches	9.80
10-Z-2126	24 inches	10.00
10-Z-2127	26 inches	10.80
10-Z-2128	30 inches	12.40

Number	Width Across Front	Price
10-Z-2130	20 inches	\$11.95
10-Z-2131	24 inches	12.40
10-Z-2132	30 inches	14.80
10-Z-2133	36 inches	18.00

Number	Width Across Front	Price
10-Z-2224	20 inches	\$11.95
10-Z-2215	22 inches	12.20
10-Z-2216	24 inches	12.40
10-Z-2217	26 inches	13.20
10-Z-2218	28 inches	14.00
10-Z-2219	30 inches	18.00

For Oxidized Copper Finish add...\$3.00 extra.
For Flemish Gray Finish add.....\$2.00 extra.

For Oxidized Copper Finish add...\$3.00 extra.
For Flemish Gray Finish add.....\$2.00 extra.

For Oxidized Copper Finish add...\$3.00 extra.
For Flemish Gray Finish add.....\$2.00 extra.

Shipping weight approximately 70 pounds.

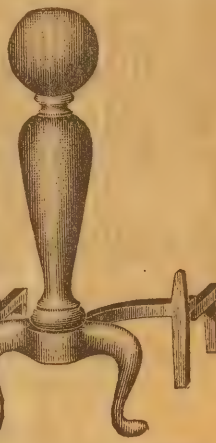
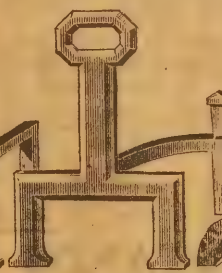
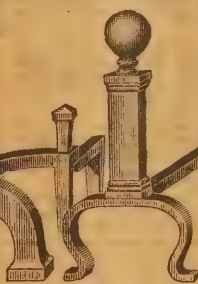
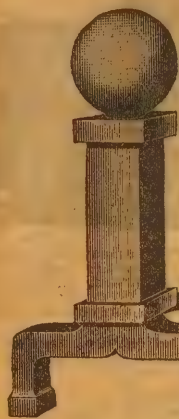
Shipping Weight approximately 80 pounds.

Shipping Weight approximately 75 pounds.

ANDIRONS

The Andirons illustrated below are all of exceptional quality, very carefully designed to meet the need of our general trade. These Andirons represent the very highest type of architecture. A specially prepared metal composition is used in the manufacture, capable of withstanding the intense heat to which andirons are liable to be exposed.

Furnished in Berlin Black, Oxidized Copper and Flemish Gray Finish.



10-Z-2225
BALL TOP ANDIRONS.
Berlin Black Finish, total height 18½ inches, shipping weight, 50 pounds, price per pair.....\$9.50
Can furnish Oxidized Copper or Flemish Gray Finish for \$2.00 extra.

10-Z-2226
MISSION STYLE ANDIRONS. Berlin Black Finish, total height 15 inches, shipping weight, 30 pounds, price per pair.....\$6.85
Can furnish Oxidized Copper or Flemish Gray Finish for \$2.00 extra.

10-Z-2227
BALL TOP ANDIRONS. Berlin Black Finish, total height 14½ inches, shipping weight, 30 pounds, price per pair.....\$4.95
Can furnish Oxidized Copper or Flemish Gray Finish for \$1.50 extra.

10-Z-2228
BERLIN BLACK ANDIRONS. total height 14 inches, shipping weight, 30 pounds, price per pair, \$3.50
Can furnish Oxidized Copper or Flemish Gray Finish for \$1.50 extra.

10-Z-2229
MISSION STYLE ANDIRONS. Hammered Effect, Berlin Black Finish, total height 21½ inches, shipping weight, 50 pounds, price per pair.....\$9.85
Can furnish Oxidized Copper or Flemish Gray Finish for \$2.50 extra.

10-Z-2230
COLONIAL STYLE ANDIRONS. Berlin Black Finish, total height 23 inches, shipping weight, 60 pounds, price per pair.....\$11.25
Can furnish Oxidized Copper or Flemish Gray Finish for \$2.50 extra.

"Harris" Dome Damper

This Improved Dome Damper has cast sections of the best grade iron stove castings.



The Worm Gear Control automatically locks door at any desired opening. No complicated mechanism—simple and efficient. The maximum amount of heat can be obtained from the fire and yet the smoke will go up the chimney.

Number	Size Front	Shipping Weight	Price
10-Z-2009	28 inches	35 pounds	\$ 7.95
10-Z-2010	32 inches	40 pounds	8.10
10-Z-2011	34 inches	45 pounds	8.30
10-Z-2012	36 inches	48 pounds	8.50
10-Z-2013	40 inches	52 pounds	9.40
10-Z-2014	46 inches	60 pounds	10.25

The ordinary damper with Ratchet Control can be furnished for \$1.00 less than prices above.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Automatic Ash Pit Trap Best Ash Trap Made



Automatic Double Door Ash Trap made extra heavy with flanges to keep it in place.

10-Z-1333, size 5½"x7½".	Price... \$.95
10-Z-1334, size 6"x12".	Price..... 1.22

Wire Spark Guards

Heavy
Wire
Frame



Fine
Wire
Lining

A very strong serviceable Guard made with extra strong frame with cross bars.

BLACK FINISH, WIRE CLOTH, 6 MESH.

10-Z-1502 size 31" wide, 31" high, 6" deep.	Price	\$5.75
10-Z-1503 size 33" wide, 33" high, 6" deep.	Price	\$5.95
Shipping weight 15 pounds.		

Free! Our New Furniture Book! Ask for it!

GLAZED ART MANTEL AND HEARTH TILE

Glazed Tile Is Positively the Only Kind That Can Be Kept Perfectly Clean. No Trouble At All to Keep Spotless and Bright,

Every piece of our Enameled Art Mantel Tile is guaranteed flawless in quality and perfectly manufactured. These are the essentials that insure permanency.

All of the most desirable colors—Ivory, Cream, Green, Brown, Delft Blue and Mottled Onyx in various shades. The glazing of our tile is an exceptionally brilliant hard enamel. The colors are literally burned in and it is impossible for the tints or shades to fade.

Our Enameled Art Tile makes the best sanitary hearth and mantel facings and our low prices put this high grade material within the reach of the smallest purse. The size of each piece is 6x1½ inches. In barrel lots special prices will be made.

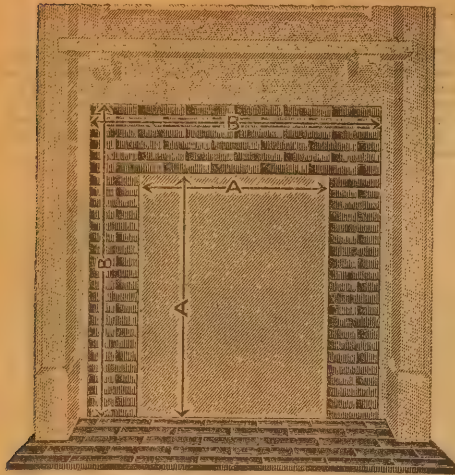
HOW TO ORDER

"A" to "A" shown on the opposite illustration is the "Grate Opening" measurement. "B" to "B" is the Mantel "Tile Opening" measurement.

The first thing to do is to select the Mantel, then select the Grate, then see the size of the tile opening of the mantel as well as the size of the grate opening of the grate, and in ordering your tile, be sure that you allow sufficient to cover the proper opening.

For instance, we will assume that you select Mantel No. 10-Z-820, tile opening 42-39, and that you select the smallest size Mephisto Grate Outfit, No. 10-Z-1354, the size which will fit into a grate opening 24½x30¼. You will thus require the largest amount of tile, as the mantel tile opening is the largest that is made and the grate opening is the smallest, leaving a large space to be filled with tile. You would, therefore, require our No. 10-Z-1608 for a opening 42x39 grate opening 24½x30¼, amounting to \$11.20.

Number.	Size of Tile Opening of Mantel	Size of Grate Opening	Size of Hearth	Price	Weight
10-Z-1603	36"x36"	30½"x30¼"	60"x18"	\$10.95	58 Lbs.
10-Z-1604	36"x36"	24½"x30¼"	60"x18"	12.20	60 Lbs.
10-Z-1605	36"x39"	30½"x30¼"	60"x18"	12.20	61 Lbs.
10-Z-1606	36"x39"	24½"x30¼"	60"x18"	12.20	62 Lbs.
10-Z-1607	42"x39"	30½"x30¼"	60"x18"	13.45	66 Lbs.
10-Z-1608	42"x39"	24½"x30¼"	60"x18"	14.95	73 Lbs.



VESUVIUS MOUNTED GAS GRATE

\$16⁹⁵

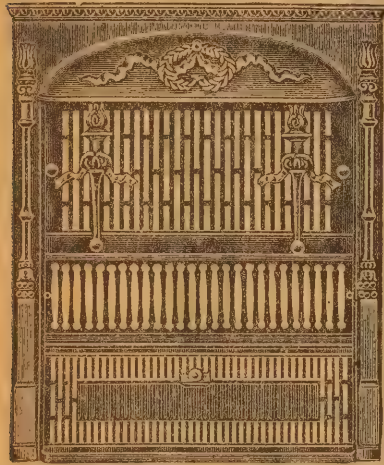
FOR COMPLETE OUTFIT

Complete mounted Gas Grate and Summer Front; 24½ inches wide by 30¼ inches high. It is fitted with our latest type steel burners, spreading one continuous sheet of fire over the asbestos back and radiating at least one-third more heat than can be produced by any other gas grate with same amount of gas. It has projecting canopy top, and damper for regulating the ventilation; also gas valve, air mixer and copper reflectors. Grate is all put together, complete, ready for use. Shipping weight, 75 lbs.

10-Z-1314. Vesuvius Mounted Gas Grate, Outfit 24½x30¼ inches, as described above. **Berlin Black Finish. Price complete \$16.95**
Copper Plated, \$1.75 extra.

10-Z-1316. Same Outfit as above, except it is 30¼ inches wide by 30¼ inches high. **Berlin Black Finish. Price complete \$19.95**
Copper Plated, \$1.75 extra.

Note: The Vesuvius Gas Grate is the cheapest, cleanest and quickest fire ever produced. Leaves no dust or ashes. Try one and be convinced.

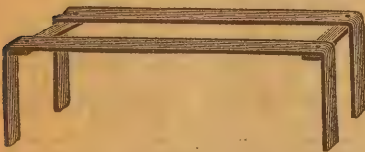


"Vesuvius" Mounted Gas Grate.

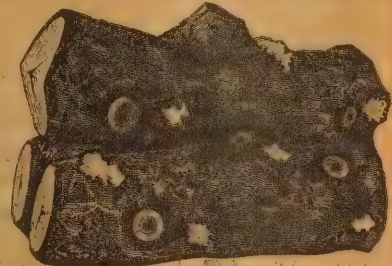
GAS LOG STANDS

Wrought Iron, Hand Made solid and substantial. Used to rest gas logs on. Legs can be cut off if too long. 14 inches is average size and will do for all logs under 24 inches long. Painted Berlin Black.

No.	Length	to Back	Height	Price
		Width, Front		
10-Z-1487	12 in.	7 in.	5½ in.	\$0.68
10-Z-1488	14 in.	7 in.	5½ in.	.75
10-Z-1489	18 in.	8 in.	5½ in.	.86
10-Z-1490	20 in.	8 in.	5½ in.	.93



SUPERIOR TERRA COTTA THREE-STICK GAS LOG \$4.50



Our Triple Gas Logs show a beautiful reproduction of natural wood. They are made of best heavy terra cotta, highly burned, and with reasonable care will last a life time. Price includes adjustable spud and mixer. Everything ready to attach to stop cock at end of pipe.

These Gas Logs may be rested on regular Androns, or Gas Log Stands as illustrated and priced in next column.

No.	Size	Price
10-Z-1491	12-inch Three Stick Log	\$4.50
10-Z-1492	14 " " " "	5.11
10-Z-1493	16 " " " "	5.60
10-Z-1494	18 " " " "	6.11
10-Z-1495	20 " " " "	7.60
10-Z-1496	24 " " " "	8.30

NOTE: 18 inch only carried in stock—as this is the average size ordered—other sizes shipped direct from our factory in Ohio.

FOLDING FIREPLACE SCREEN — ENTIRELY NEW AND LASTING

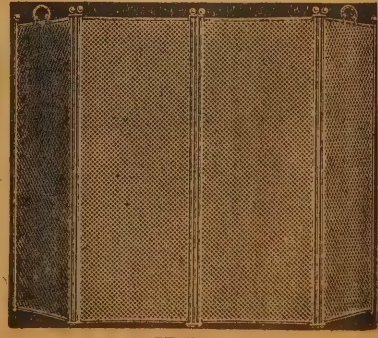
Guaranteed against warping or getting out of shape. The fabric is of double mesh, fine wire. Our new hinge connection not only allows you to make up any size screen you may desire, but by attaching or detaching the panels the screens will stand straight and be rigid on the floor in any position. Our black screens are copper plated first, then oxidized black, giving them a dull, soft, smooth, black finish that will never wear off.

Style	No.	Width of Entire Screen	Hght.	Width of Folds	Finish	Price of Entire Screen	Extra Folds
"A"	10-Z-1421	42"	26"	12"x18"	Dull Black	\$ 8.95	\$3.10
"A"	10-Z-1422	42"	30"	12"x18"	Dull Black	9.95	3.50
"B"	10-Z-1423	48"	26"	12"	Dull Black Brass Knobs	10.75	2.90
"B"	10-Z-1424	48"	30"	12"	Dull Black Brass Knobs	11.75	3.40
"B"	10-Z-1425	48"	26"	12"	All Solid Brass	21.50	5.50
"B"	10-Z-1426	48"	30"	12"	All Solid Brass	23.50	6.00

Shipping weight, 15 to 20 lbs. If handles are wanted on Nos. 1421-22-23 or 24, add 25c per handle extra. Shipped direct to you from northern Michigan factory.



STYLE "A"



STYLE "B"

BRAND NEW LUMBER

REDUCED PRICES ON GUARANTEED QUALITY LUMBER

IMMEDIATE SHIPMENT FROM OUR CHICAGO STOCKS

Millions of Feet Always on Hand Ready for Immediate Shipment—Cars Loaded While You Wait
ORDER DIRECT FROM THIS LIST

HOW TO ORDER: Use our regular order blank, if at hand, or any ordinary plain sheet of writing paper. Please specify clearly just what you want and how much of it, also the purpose for which it is to be used. Order a carload of 16,000 feet or more and you will save on freight by getting carload rates. If you do not need this much, however, we will fill orders for any smaller quantity at these prices.

NO ORDER TOO SMALL FOR CAREFUL ATTENTION OR TOO LARGE FOR OUR CAPACITY

FREIGHT: Prices are f. o. b. cars Chicago. Freight rates from Chicago to many localities are 25 to 75% less than from Southern mill points advertised by competitors. Also, the saving of time is worth something; four to six days' time on the rails from Chicago as compared to four to six weeks' time from the saw mill. Material carefully loaded in carloads, carefully bundled when shipped less than carloads. You take no risk when you order from us. Safe delivery of every item guaranteed.

A WORD ABOUT THIS LUMBER

This lumber is absolutely guaranteed up to grade in every respect, and is in most instances much better, than lumber sold supposedly to be the same grades in many other yards in the United States. It is the same excellent grade of lumber that we furnish for our GUARANTEED Harris Homes, so you can see you are perfectly safe in ordering lumber from these pages and, in our opinion; you will get the best grade of its kind to be had. Do not compare our stock with hemlock, which is a much inferior wood.

These Special Prices are for orders received from these pages only. Please order direct. Do not let anyone stop you from ordering as your satisfaction is guaranteed by us. See inside cover page.

No. 1 YELLOW PINE DIMENSION

Standard manufacture, size and finish. Surfaced (planed) 1 side and 1 edge. Weight, 260 lbs. per 100 ft. B. M.

Lot No. 22-Z-701

Size, Inches	Length	Price, Per Piece	Price, per 100 Feet B. M.
2x4	6 ft.	\$0.11	\$2.75
2x4	8 ft.	.17	3.20
2x4	9 ft.	.20	3.30
2x4	10 ft.	.24	3.50
2x4	12 ft.	.30	3.70
2x4	14 ft.	.35	3.70
2x4	16 ft.	.41	3.80
2x4	18 ft.	.48	4.00
2x4	20 ft.	.54	4.00
2x6	6 ft.	\$0.17	\$2.75
2x6	8 ft.	.25	3.10
2x6	10 ft.	.33	3.30
2x6	12 ft.	.42	3.50
2x6	14 ft.	.49	3.50
2x6	16 ft.	.58	3.60
2x6	18 ft.	.69	3.80
2x6	20 ft.	.76	3.80
2x8	6 ft.	\$0.23	\$2.75
2x8	8 ft.	.34	3.20
2x8	10 ft.	.47	3.50
2x8	12 ft.	.59	3.70
2x8	14 ft.	.69	3.70
2x8	16 ft.	.81	3.80
2x8	18 ft.	.96	4.00
2x8	20 ft.	1.07	4.00

For longer lengths, as well as 2x10 and 2x12 write for prices.

SHIP-LAP & D. & M.

For sub-floor sheathing, etc., etc.

Yellow Pine

Size, Inches	Lot 22-Z-702 No. 2 grade Per 100 ft. B. M.	Lot 22-Z-703 No. 1 grade Per 100 ft. B. M.
1x 6	\$3.20	\$4.00
1x 8	3.40	4.30

Surfaced 2 sides. Assorted lengths, 8 to 20 ft. Weight, 220 lbs. per 100 ft. Specified lengths 50c per 100 ft. extra.

No. 2 Y. PINE BOARDS S2S

Sheathing, sub-floor, roof boards, fence, barn, shelf and common boards. Surfaced 2 sides. Assorted lengths, 8 to 20 ft. Weight, 260 lbs. per 100 ft. B. M.

Lot 22-Z-704

Size, Inches	Price per 100 lineal ft.	Price, per 100 ft. B. M.
1x 4	\$0.85	\$2.55
1x 6	1.55	3.10
1x 8	2.20	3.30

No. 1 Y. PINE BOARDS S2S

Lot 22-Z-7014

Size, Inches	Price per 100 lineal ft.	Price, per 100 ft. B. M.
1x 4	\$1.20	\$3.60
1x 6	1.95	3.90
1x 8	2.30	4.20
1x10	3.92	4.50
1x12	4.90	4.90

For specified lengths add 50c per 100 ft. No. 1 grade is frequently used for cheap outside finish.

No. 1 Y. PINE TIMBERS S4S

Lot 22-Z-705

Size, Inches	Length, Feet	Price, per Piece
4x4	10	\$0.53
4x4	12	.64
4x4	14	.75
4x4	16	.86
4x4	18	.96
4x4	20	1.06
4x6	10	\$0.80
4x6	12	.96
4x6	14	1.12
4x6	16	1.28
4x6	18	1.44
4x6	20	1.60
6x6	10	\$1.20
6x6	12	1.44
6x6	14	1.68
6x6	16	1.92
6x6	18	2.16
6x6	20	2.40

Our Timbers are all square edge and square No. 1 Grade surfaced (planed) on all four sides and are largely longleaf stock.

CLEAR FINISH

Our clear grade finish is guaranteed kiln dried, free from knots, blue stain or other defects, and suitable for perfect natural wood or stain finish. Surfaced 1 sides. Lengths, 8 to 20 ft. Weight, 260 lbs. per 100 ft. B. M.

CLEAR SOUTHERN (YELLOW) PINE

Lot Number	Size, Inches	Price, per 100 lineal ft.	Price, per 100 ft. B. M.
22-Z-706	1 x 4	\$1.75	\$5.25
	1 x 6	2.95	5.90
	1 x 8	4.20	6.30
	1 x10	5.50	6.60
22-Z-707	1 x12	6.90	6.90
	1 1/4 x 4	\$3.13	\$7.50
	1 1/4 x 6	4.85	7.75
	1 1/4 x 8	6.58	7.90
22-Z-707	1 1/4 x10	8.44	8.10
	1 1/4 x12	10.63	8.50

Specified lengths 10 percent extra.

CLEAR OREGON FIR FINISH

Lot Number	Size, Inches	Price, per 100 lineal ft.	Price, per 100 ft. B. M.
22-Z-708	1 x 4	\$1.75	5.25
	1 x 6	2.95	5.90
	1 x 8	4.33	6.50
	1 x10	5.75	6.90
22-Z-709	1 x12	7.50	7.50
	1 1/4 x 4	\$3.33	\$8.00
	1 1/4 x 6	5.15	8.55
	1 1/4 x 8	7.08	8.50
22-Z-710	1 1/4 x10	9.27	8.90
	1 1/4 x12	11.63	9.50
	2 x 4	\$4.33	\$6.50
	2 x 6	6.75	6.75
22-Z-710	2 x 8	9.67	7.25
	2 x10	12.50	7.50
	2 x12	15.80	7.90

Specified lengths 10 percent extra.

CLEAR RED OAK FINISH

Lot Number	Size, Inches	Price, per 100 lineal ft.	Price, per 100 ft. B. M.
22-Z-7011	1 x 4	\$4.60	\$13.80
	1 x 6	7.25	14.50
	1 x 8	10.60	15.00
	1 x10	12.92	15.50
22-Z-7012	1 x12	16.50	16.50
	1 1/4 x 4	\$6.87	\$16.50
	1 1/4 x 6	10.62	17.00
	1 1/4 x 8	14.59	17.50
22-Z-7012	1 1/4 x10	18.75	18.00
	1 1/4 x12	23.75	19.00

Specified lengths 10 percent extra.

The above dimension, boards and timber generally carried in stock in Yellow Pine, but when out of same we reserve the right to furnish equal grades in Fir instead. D. & M. means "Dressed & Matched." B. M. means "Board Measure." Owing to market conditions prices on lumber are subject to change at our option.

We cannot quote on No. 2 grade dimension as we handle only No. 1 grade here in Chicago. No team or truck delivery included at these prices.

BRAND NEW LUMBER Continued

Flooring, Ceiling, Siding, Lath and Shingles

IMMEDIATE SHIPMENT FROM OUR CHICAGO STOCKS

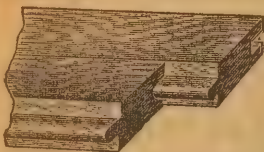


Beveled Siding

Also known as "Weather-Boarding Split Siding," "Clap Boards or Lap Siding." Red Wood and Spruce. Machined to standard width and thickness. Standard bundling assorted lengths 4 to 16 ft. All prices per 100 feet, Board Measure. Weight, 80 lbs. per 100 feet.

Note: Order by number. State size, grade and kind of wood wanted. Also for your protection, please state size of space you intend covering.

Number	Size	Grade	Wood	Price
22-Z-711	1/2" x 4"	Clear	Spruce	\$4.50
22-Z-712	1/2" x 6"	Clear	Spruce	4.80
22-Z-713	1/2" x 4"	Clear	Red Wood	4.60
22-Z-714	1/2" x 6"	Clear	Red Wood	4.90



House Flooring

Best quality. Correctly manufactured and thoroughly kiln dried.

Price per 100 ft. B. M. Weight 200 lbs. per 100 ft. Assorted lengths 8 to 20 ft.

Number	Finished Size	Grade	Wood	Price
22-Z-7120	3/4" x 3 1/4"	Clear	Flat Sawed Fir	\$4.50
22-Z-7121	3/4" x 3 1/4"	Clear	1/4 Sawed Fir	6.00
22-Z-7122	3/4" x 3 1/4"	Clear	Flat Sawed Y. Pine	5.60
22-Z-7123	3/4" x 3 1/4"	Clear	1/4 Sawed Y. Pine	7.00
22-Z-7126	1 1/2" x 2 1/4"	Clear	Flat Sawed Y. Pine	6.20
22-Z-7127	1 1/2" x 2 1/4"	Clear	1/4 Sawed Y. Pine	8.00

Above are the highest grades made. Shipped carefully bundled. 1/4 sawed. "Edge Grain," "Comb Grain" mean the same. Y. P. means Yellow Pine, or Southern Hard Pine.

Fir Porch Flooring

We recommend Fir especially for the purpose of porch floors. It wears better because it is not as soft as Soft Pine and some other woods now being endorsed for Porch floors. This close knit fibrous Fir of the Western Slope, in our opinion, has all other woods backed off the boards for porch floors.

Price per 100 feet B. M. Weight 200 lbs. per 100 feet.

Number	Size	Grade and Kind	Lengths	Price
22-Z-7137	3/4" x 3 1/4"	Clear Flat Grain Fir	6 to 9 ft.	\$4.25
22-Z-7138	3/4" x 3 1/4"	Clear Edge Grain Fir	6 to 9 ft.	5.75

Note: Order by number. State size, grade and kind of wood wanted. Also for your protection, please state size of space you intend covering.

Byrkit's Patent Sheathing Lath

Used in place of sheathing boards when wall is to be covered with stucco



Furnished in random lengths—4 to 16 ft. Tongued and grooved or square edged as in stock. No. 2 and 3 grade mixed. 165 lbs. per 100 ft.

22-Z-7139. From 1x6 in. strips. Per 100 feet B. M.\$2.75.

Washington Red Cedar Shingles

22-Z-7140. Extra Star A Star 16-inch, 6 to 2 butts. Weight, 128 lbs. Price per square..... Write for prices

22-Z-5415. Extra Clear, 16-inch, 5 to 2 butts. Highest grade made. Weight, 144 lbs. Price per square..... Write for prices

These prices are given "per square" so you can easily compare with other roofing material and asphalt shingles usually sold "per square," and are based on furnishing enough shingles to cover 100 square feet, laid 5 inches to the weather. For 4 1/2 inches to the weather order 10% extra.



Drop Siding

Also known as "Novelty Siding," "Rustic Siding," "German or Dutch Siding," "Fat-ent Siding."

This kind of siding is used mainly where sheathing boards are not used.

Machined to standard widths and thickness. Prices are for assorted lengths 6 to 16 feet and longer. Very small amount of 6 and 8 ft. Pattern No. 106 always in stock.

No. 117 Price per 100 ft. B. M. Weight per 100 ft. No. 106

Number	Size	Grade	Wood	Price	Weight
22-Z-7149	5/8" x 6"	Clear	Oregon Fir	\$3.25	160
22-Z-7148	1" x 6"	Clear	Oregon Fir	4.25	190

Ceiling-Wainscot and Partition

For porches, under eaves, wainscot, ceilings, etc. All tongued, grooved and beaded, smoothly machined. Kiln dried, suitable for natural finish. Assorted lengths, 6 ft. to 16 ft.

Number	Rough Size	Finished Size	Grade	Wood	Price 100 Ft. B. M.	Wgt. per 100 Ft.
22-Z-7151	1 x 4"	5/8" x 3 3/4"	Clear	Oregon Fir	\$3.50	140
22-Z-7153	1 x 6"	5/8" x 5 1/4"	Clear	Oregon Fir	4.50	200



Hardwood Flooring

Perfectly Manufactured, Guaranteed Grades.

Kiln Dried, End Matched, Tongued and Grooved

Price per 100 feet Board Measure. Standard lengths. Weight 200 lbs. per 100 ft.

Number	Finished Size	Grade	Wood	Price
22-Z-7155	1 1/2" x 2 1/4"	Clear	Maple	\$11.75
22-Z-7156	1 1/2" x 2 1/4"	Select	Maple	9.50
22-Z-7157	1 1/2" x 2 1/4"	Clear	Red Oak	11.25
22-Z-7158	1 1/2" x 2 1/4"	Select	Red Oak	7.95

Thin Hardwood Flooring End Matched

Price per 100 lineal feet. Standard lengths.

Net Finished Size	22-Z-5311 Select Maple	22-Z-5314 Clear Maple	22-Z-5316 Select Red Oak	22-Z-5320 Clear Red Oak	22-Z-5321 Clear 1/4 Sawed R. O.
3/4" x 2"	\$1.50	\$2.20	\$1.20	\$1.70	\$3.00

Weight, 20 pounds per 100 lineal feet.

How to Order Thin Flooring: Get the square feet space of your floor, which if your room is 10x12 figures 120 square feet. Multiply by 6, result 720 lineal feet will cover your floor.

Plastering Lath



Always in stock in 32 inch lengths. Full thickness and width. Mixed Northern Pines, No. 1 grade. Wt., 325 per 1000.

Low Prices per 1,000 pieces.

22-Z-7165. 32-inch Lath, Northern Pine.....\$4.50

22-Z-7166. 48-inch Lath, Northern Pine..... 9.50

48-inch lath, weight 500 lbs. per 1000.

"PRESTO-UP"

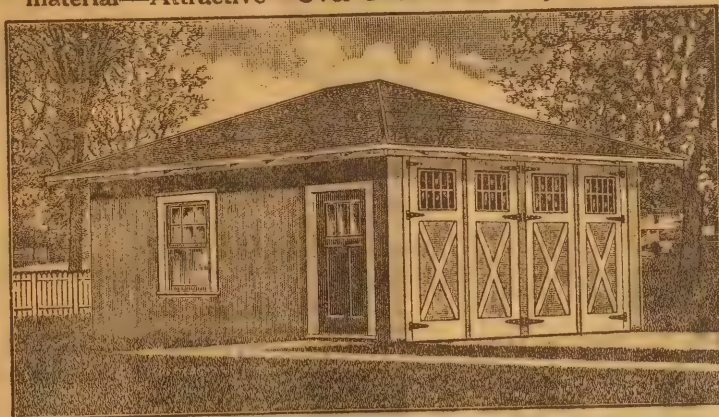
BOLT-TOGETHER BUILDINGS

PATENTED

THE WONDER BUILDINGS OF THE AGE

Easily Erected—Anyone can do it—Guaranteed solid construction—Best quality material—Attractive—Over 1000 in the City of Chicago

Patented
April 2, 1918
Sept. 3, 1918
March 22, 1921
Other Patents
Pending



OVER
100 SIZES
AND STYLES
OF
BUILDINGS

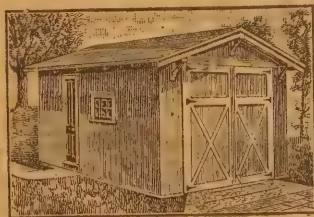
Model "D" Two-car Garage

MANY SIZES AND STYLES. PRICED FROM \$117.00 UPWARDS

Just think of it! Over 1000 PRESTO-UP Garages are in use in the city of Chicago alone. PRESTO-UP Houses are in use practically throughout the United States as well as in foreign countries. These buildings are not an experiment, but have been perfected so that today they are, in our opinion, the best sectional buildings that can be produced. Their patented features guarantee you value not to be obtained elsewhere. PRESTO-UP houses are sold at a price far below the cost of similar well-built buildings, built in the old-fashioned way, to say nothing of the great saving in time. All PRESTO-UP Buildings are thoroughly inspected and guaranteed. They come to you complete in convenient size sections all ready to bolt together. Our catalogue gives full details.

BRIEF GARAGE SPECIFICATIONS

- No. 1—4x8 Bottom Sill.
 - No. 2—Clear Kiln Dried Oregon Fir Siding.
 - No. 3—Strictly No. 1 and Better Framing.
 - No. 4—Matched and Beaded Roof Sheathing.
 - No. 5—Pat. Presto-Up Notch-Lock Truss.
 - No. 6—4x6 Grooved Top Wall-Plate.
 - No. 7—15-Year Guaranteed Slate-Coated Roofing, green or red color.
 - No. 8—Quality Front Doors, blind-mortised and tenoned, pinned and glued.
 - No. 9—No. 1 Quality Side Doors.
 - No. 10—All hardware furnished applied.
 - No. 11—Painted one good coat.
 - No. 12—Rabbeted Storm-proof Windows.
- And last but not least, convenient size sections. Many of the one-car Garages have been erected in less than three hours by two men of ordinary intelligence. Manufactured exclusively by us. Shipped from factory here, at main plant in Chicago.



This shows a Model "A" one-car garage. Material and construction is alike on all PRESTO-UP Garages; the difference being the various styles of roofs, windows, doors and sidings. Our catalogue gives full information. Priced from \$117.00 upwards.



Here is a sketch of a "PRESTO-UP" house. There are 72 different styles and sizes in our catalogue, ranging in price from \$303 upwards. A house to fit every pocketbook.

SEND FOR FREE CATALOG 38-JY

25 TO 50% RETURN ON YOUR INVESTMENT

Do you contemplate erecting a Garage for your car? The low prices at which we sell our PRESTO-UP Garages will mean anywhere from 25 to 50% return on your investment. Send for our catalogue No. 38-JY. Let us show you the most wonderful buildings of their kind on the market. The same applies to houses. If you intend building a cottage, church, hall or school-building, our catalogue will tell you all about it. We will name freight-paid-by-us prices. Full information gladly given so that you can buy with perfect safety and satisfaction.

WRITE TODAY

Galvanized Eave Trough and Trimmings



When ordering be sure and state whether right or left hand trough is wanted. Right hand trough discharges water at the right hand end of the trough; left hand discharges the water at the left hand end. This eave trough is furnished in 10-ft. lengths. We do not supply cut lengths.

Improved Slip Joint Galvanized Eave Trough

This is the best and most convenient Eave Trough in the world. It is made of superior quality, heavily galvanized steel sheets and will not rust. Each length has an improved slip joint at one end so that the lengths can be quickly and easily be put together without soldering—the result being perfectly water-tight joints throughout. Any ordinary workman can put up this eave trough without the aid of a tinner.

28-GAUGE GALVANIZED TROUGH—STANDARD WEIGHT

No.	Size, Inches.....	3 1/2	4	4 1/2	5	6
22-Z-741	Price, per length..	\$0.54	\$0.61	\$0.68	\$0.72	\$0.90
	Weight, per length	4#	5#	5 1/2#	6#	7#

26-GAUGE GALVANIZED TROUGH—EXTRA HEAVY

No.	Size, Inches.....	3 1/2	4	4 1/2	5	6
22-Z-742	Price, per length..	\$0.76	\$0.83	\$0.90	\$0.94	\$1.15
	Weight, per length	5 1/2#	6#	6 1/2#	7 1/2#	8#

END CAP SLIP JOINT

22-Z-743. Made in one piece. Used to close ends of eave trough and adjustable outlets.

28-Gauge Galvanized—Standard Weight.

Size, inches	Price, each
3 1/2	.09c
4	.10c
4 1/2	.11c
5	.12c
6	.13c

Size, ins.	Price, each	Size, ins.	Price, each
3 1/2	.11c	5	.15c
4	.13c	6	.16c
4 1/2	.14c		

GALVANIZED WIRE HANGERS

22-Z-7415 Made of galvanized wire, and is the most simple and satisfactory hanger on the market.



Size, inches.....	3 1/2	4	4 1/2	5	6
Price, per dozen.....	35c	38c	40c	42c	45c

GALVANIZED ROOF GUTTERS



Made of No. 28-gauge steel, beaded and formed with patent slip joints. Anyone can put it on. Requires no soldering. Made in 10-foot lengths in one piece. Illustration shows slip ends in position. Prices are for gutter only. Regular Corrugated Conductor is used in connection with this gutter. Sold only in full lengths.

22-Z-7434. Size 14-Inch girth, roll 3 Inches high, flat surface 9 inches. Weight per length 10 pounds. Price per length.....	\$1.20
22-Z-7435. Size 20-Inch girth, roll 4 Inches high, flat surface 13 inches. Weight per length 13 pounds. Price per length.....	\$2.00

Made of 26-Gauge, Extra Heavy	
22-Z-7436. Size 14-Inch girth, roll 3 Inches high, flat surface 9 inches. Weight per length 12 pounds. Price per length.....	\$2.10
22-Z-7437. Size 20-Inch girth, roll 4 Inches high, flat surface 13 inches. Weight per length 17 pounds. Price per length.....	\$2.60

VALLEY TIN



Made of High Grade Tin plate in a continuous length, locked and soldered. Full lengths are 50 feet. Will furnish any length desired. Painted one side.

Width, inches	Wt., per roll	Price, per foot	Price, 50-ft. roll
22-Z-7445. 14	30 lbs.	\$0.13	\$6.00
22-Z-7446. 20	43 lbs.	.18	8.60

GALVANIZED VALLEY

Width, inches	Wt., per roll	Price, per foot	Price, 50-ft. roll
22-Z-7447. 14	40 lbs.	\$0.12	\$5.50
22-Z-7448. 20	60 lbs.	.17	7.90

ADJUSTABLE OUTLET



Consists of a short piece of about 8 inches of trough, with slip joint on one end, drop outlet soldered on bottom close to the other end to connect to the conductor pipe. End cap extra.

Size, inches.....	3 1/2	4	4 1/2	5	6
Price, each.....	24c	26c	28c	30c	35c
22-Z-746. 26-Gauge Galvanized—Extra Heavy.					
Size, inches.....	3 1/2	4	4 1/2	5	6
Fitted for Conductor, inches.....	2	2	3	3	4
Price, each.....	30c	33c	36c	38c	44c

GALVANIZED BOX GUTTERS

Made of No. 28-gauge galvanized steel and furnished in 10 foot lengths, both ends open.



No.	Girth	Wt., per 100 Ft.	Size	Depth	Price, per Foot
22-Z-7417.	12-in.	72 lbs.	5-in. & 3 1/4-in.		15c
22-Z-7418.	16-in.	96 lbs.	6-in. & 4 1/4-in.		18c
22-Z-7419.	18-in.	108 lbs.	6-in. & 5-in.		20c
22-Z-7420.	20-in.	120 lbs.	7-in. & 6-in.		25c

26-Gauge Extra Heavy					
No.	Girth	Wt., per 100 Ft.	Size	Depth	Price, per Foot
22-Z-7422.	12-in.	80 lbs.	5-in.	3 1/4-in.	18c
22-Z-7423.	16-in.	108 lbs.	6-in.	4 1/4-in.	20c
22-Z-7424.	18-in.	122 lbs.	6-in.	5 1/4-in.	23c
22-Z-7425.	20-in.	136 lbs.	7-in.	6 1/2-in.	30c
For any of the above sizes one end closed, add 50c					

GALVANIZED SPOUT ENDS



28-Gauge Standard Weight. To be used with Galvanized Roof Gutter.

22-Z-7438. For 14-inch gutter. Price, each.....	55c
22-Z-7439. For 20-inch gutter. Price, each.....	65c

22-Z-7440. 26-Gauge Extra Heavy. For 14-inch gutter.....	65c
22-Z-7441. For 20-inch gutter.....	80c

BLOCK FINALS

22-Z-7530. Used in connection with roofing cresting, and can also be used with the 1 1/2 and 2 inch Ridge Roll. Height is 10 1/2 inches. Price, each.....



TINNERS' SNIPS



Best quality, Hand Forged Tinner's Snips, fully guaranteed.

4-Z-7533. 2 1/2-in. cut.	Price, each.....	\$1.50
4-Z-7534. 3 -in. cut.	Price, each.....	1.70

GALVANIZED CORNER MITRES

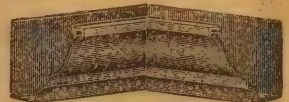


These corners are made with both inside and outside bead. Be sure to order according to number.

28-Gauge Galvanized—Standard Weight.	
22-Z-747. Outside corner slip joint, right hand.	
22-Z-748. Outside corner slip joint, left hand.	
22-Z-749. Inside corner slip joint, right hand.	
22-Z-7410. Inside corner slip joint, left hand.	
Size, inches.....	3 1/2 4 4 1/2 5 6
Price, each.....	22c 24c 30c 35c 40c

26-Gauge Galvanized—Extra Heavy.	
22-Z-7411. Outside corner slip joint, right hand.	
22-Z-7412. Outside corner slip joint, left hand.	
22-Z-7413. Inside corner slip joint, right hand.	
22-Z-7414. Inside corner slip joint, left hand.	
Size, inches.....	3 1/2 4 4 1/2 5 6
Price, each.....	33c 35c 38c 40c 47c

GALVANIZED BOX GUTTER MITRES



28-Gauge Standard Weight.	
22-Z-7426. 12-in. Girth. Price, each.....	40c
22-Z-7427. 16-in. Girth. Price, each.....	50c
22-Z-7428. 18-in. Girth. Price, each.....	65c
22-Z-7429. 20-in. Girth. Price, each.....	70c

26-Gauge Extra Heavy.	
22-Z-7430. 12-in. Girth. Price, each.....	50c
22-Z-7431. 16-in. Girth. Price, each.....	60c
22-Z-7432. 18-in. Girth. Price, each.....	75c
22-Z-7433. 20-in. Girth. Price, each.....	85c

GALVANIZED SLIP ENDS



28-Gauge Standard Weight.	
22-Z-7441. To be used with Galvanized Roof Gutter.	
For 14-in. gutter. Price, each.....	30c
22-Z-7442. For 20-in. gutter. Price, ea. 40c	
26-Gauge Extra Heavy.	
22-Z-7443. For 14-in. gutter. Price, each.....	40c
22-Z-7445. For 20-in. gutter. Price, each.....	55c

METAL HIP SHINGLES

These shingles are much more ornamental than the wood hip caps and are easily laid. Size of shingles, 4x9 inches.



22-Z-7531. Painted tin hip shingles. Size, 4 inch by 9 inch. Price, each.....	\$0.03 1/2
Price, per 100.....	\$3.20
22-Z-7532. Galvanized hip shingles. Size, 4 inch by 9 inch. Price, each.....	\$0.04 1/2
Price, per 100.....	\$4.00

STRAP HANGERS FOR BOX GUTTERS



Be sure to mention girth. Made of 16-gauge Galvanized Steel.

22-Z-7416. Each.....	8c
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Galvanized Conductor Pipe, Etc.

Galvanized Corrugated Conductor Pipe

Guaranteed to be the Best on the Market

This Conductor Pipe is made of strictly first quality heavily galvanized sheets. Nothing better, stronger or more durable in this gauge of pipe can be had. It is made in 10-foot lengths without cross seams. Will not burst when full of ice. We furnish it in full 10-foot lengths only.



Size of Conductor to Use With Eaves Trough

Size of Eaves Trough, inches	3 1/2	4	4 1/2	5	6
Size of Conductor, ins.	2	2	3	3	4

No. 22-Z-751—28-Ga. Pipe, Standard Wgt.

Size, inches...	2	3	4	5	6
Wt. per lg. lb.	5	6	8	10	11 1/2
Price, per lgth.	\$0.62	\$0.72	\$0.95	\$1.20	\$1.45

No. 22-Z-752—26 Ga. Extra Heavy

Size, inches...	2	3	4	5	6
Wt. per lg. lb.	6	7 1/2	10	12 1/2	14
Price, per lgth.	\$0.90	\$1.00	\$1.35	\$1.60	\$1.90

Conductor Elbows (Galvanized Corrugated)



No. 1—45 Deg. No. 2—60 Deg. No. 4—90 Deg.

When ordering always mention number.

22-Z-753. Conductor Elbow Angle Number 1.

22-Z-754. Conductor Elbow Angle Number 2.

22-Z-755. Conductor Elbow Angle Number 3.

28-Gauge		26-Gauge	
Size, In.	Price, Ea.	Size, In.	Price, Ea.
2	\$0.22	2	\$0.35
3	.26	3	.42
4	.44	4	.70
5	.80	5	1.20
6	.95	6	1.32

Perfection Conductor Pipe Fasteners

Suitable for wood or brick buildings. Made of heavily galvanized twisted wire. The principal features are, that owing to the construction of this hanger, it keeps the pipe from coming in contact with the building, making it possible to paint behind the conductor pipe, preventing the moisture from rotting the siding and corroding the pipe. They are easily applied; simply require nailing and tightening up with a common pier. There is no danger of splitting the siding, as is the case when using the conductor hooks that have to be driven in.



22-Z-758

Size of Conductor Pipe, In.	2	3	4	5	6
Gauge of wire.	14	15	11	10	9
Price, per dozen	\$0.35	\$0.40	\$0.60	\$0.75	\$0.85

Conductor Hooks

22-Z-759. Galvanized Conductor Hooks for Corrugated Conductor.



Size, Inches	Price per doz. for wood	Price per doz. for brick
2 1/2	\$0.75	\$0.80
3	.95	1.00
4	1.32	1.55
5	1.90	2.15
6	2.25	2.70

Rain Water Cut-off

For Corrugated Conductor Pipe.

28-Gauge Galvanized—Standard Gauge.

22-Z-7510



Size, In.	Price, Ea.
2	\$0.70
3	.80
4	1.00
5	1.80
6	2.10

22-Z-7511. 26-Gauge Galvanized—Extra Heavy.

Size, In.	Price, Ea.
2	\$1.10
3	1.20
4	1.50
5	2.85
6	3.30

Conductor Funnel

28-Gauge Galvanized

22-Z-7512. Conductor Funnels are used for running two conductors into one outlet. Size given is size of lower spout.

Size, In.	2	3	4	5	6
Price, Ea.	\$0.60	\$0.70	\$0.80	\$1.00	\$1.20

22-Z-7513. 26-Gauge. Extra Heavy.

Size, inches	2	3	4	5	6
Price, each	\$0.70	\$0.80	\$0.95	\$1.20	\$1.45



Conductor Strainers

22-Z-7514. Galvanized Wire Conductor Strainers. To be placed in the outlet of eaves trough, preventing leaves, etc., from stopping up the conductor. Size given indicates the size of the outlet strainers will fit.



Size, inches	2	3	4	5	6
Price, each	\$0.12	\$0.16	\$0.24	\$0.42	\$0.50

Galvanized Roof Ventilators

Made of Heavy Galvanized Iron

For removing smoke, dust, impure air from halls, churches, schools, factories, stables, etc., prevents down drafts and improves smoky chimneys.



Size	Wt.	Price
22-Z-7515. 4-in.	about 2 lbs.	\$3.80
22-Z-7516. 6-in.	about 4 lbs.	4.50
22-Z-7517. 7-in.	about 5 lbs.	5.20
22-Z-7518. 8-in.	about 8 lbs.	5.80
22-Z-7519. 9-in.	about 8 1/2 lbs.	6.40
22-Z-7520. 10-in.	about 9 lbs.	8.00
22-Z-7521. 12-in.	about 12 lbs.	9.50

COPPER MATERIALS

If you prefer your down spouting materials made of the very best cold rolled copper we can supply it at very lowest market prices.

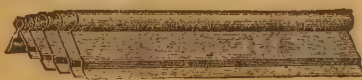
Write us for quotations.

Square Corrugated Conductor Pipe

We can also furnish Square Corrugated Conductor Pipe with all trimmings to match in either 28 gauge standard or 26 Gauge Extra Heavy Galvanized material. Write for prices.

Galvanized Ridge Roll—Plain Apron

10 Foot Lengths



A neat water-proof Cap for the ridge of roofs. It is made in 10 ft. lengths and can be used on shingles or any other kind of roofing. We do not furnish cut lengths.

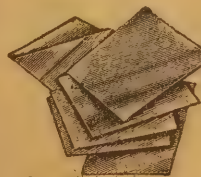
28-Gauge Standard Weight		26-Gauge. Extra Heavy.	
Size of Roll, Inches	Width of Apron, Inches	Size of Roll, Inches	Width of Apron, Inches
22-Z-7522. 1 1/2	2	22-Z-7524. 1 1/2	2
22-Z-7523. 3	2	22-Z-7525. 2	2 1/2
		Girth, Inches	Per 10 Ft. Length
		8	\$0.53
		10	.69
		8	\$0.80
		10	.90

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Painted Tin Shingles—Flashings—Hip Shingles

Made of roofing tin. Used for making tight joints around chimneys and roof hip finish.

Size	Wt.	Price
22-Z-7525. Tin Shingles. Size 5x7 inches.	per 100 pieces, 11 1/2 lbs.	\$0.03
22-Z-7526. Flashings. Size 7x10 inches.	per 100 pieces, 20 lbs.	\$0.06
22-Z-7527. Hip Shingles. Size 2 1/2 x 7 inches.	per 100 pieces, 5 1/2 lbs.	\$0.02
22-Z-7528. Size 5x 7 inches; wt. per 100, 20 lbs.		\$0.03 1/2 each
22-Z-7529. Size 7x10 inches; wt. per 100, 30 lbs.		.09 1/2 each



GALVANIZED FLASHING SHINGLES

Have You One of Our Hardwood Floor Scrapers?

RAWHIDE STONE FACED GOLD MEDAL Roofing

Note Our GUARANTEE!
Not How Cheap—But How Good!

We have attained a near mark of perfection in the manufacture of GOLD MEDAL ROOFING and back up every purchase with the following GUARANTEE:

If the GOLD MEDAL ROOFING you purchase from us proves defective in quality, we will replace every roll free of charge.

We use the best wool felt as a basis for this high grade material and after saturating correctly by the most modern methods with hot asphalt, the stock is ready for surfacing. White marble coating pressed into the roofing surface while the asphalt is hot gives it a weather-resisting surface known to no other class of material. By reason of this surfacing the material will resist fire and lightning and will not ignite from flying sparks.

Each roll contains 108 square feet and will cover 100 square feet of surface. It can be laid over sheathing boards or old shingles. Your choice of long or short nails and plenty of cement furnished free of charge.

Lot No. 13-Z-615. GOLD MEDAL, Standard Weight, 15 year guarantee.

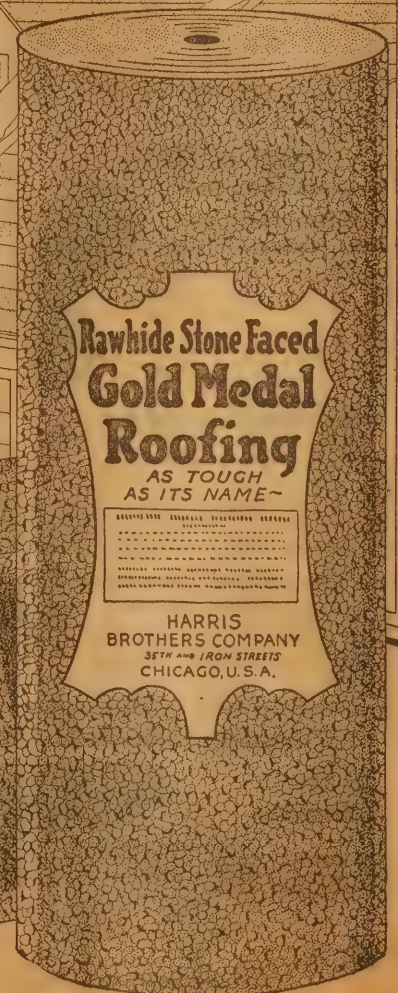
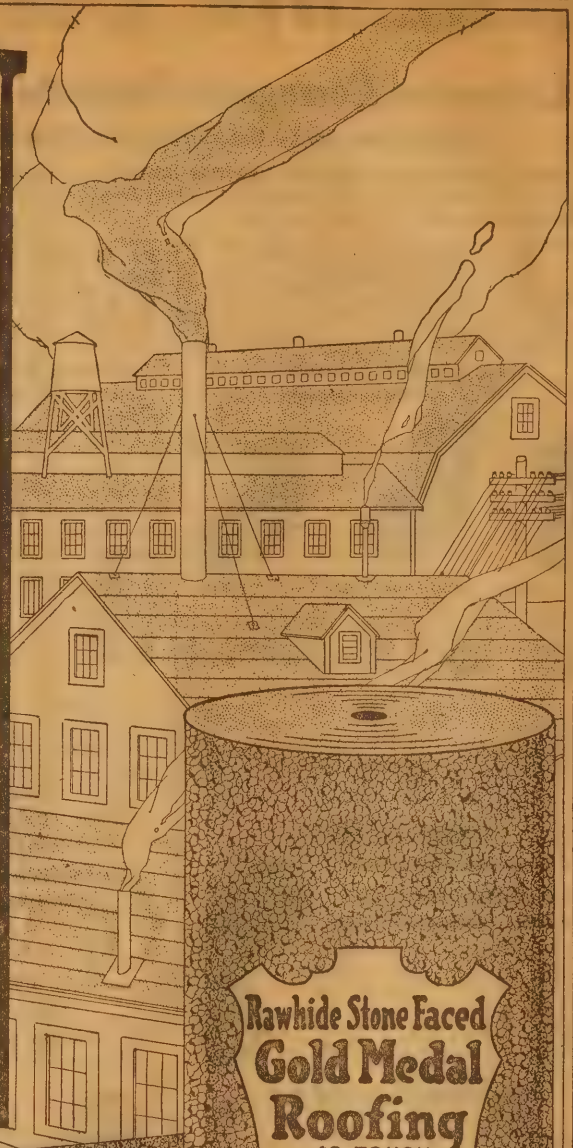
Per roll **\$2.75**

Lot No. 13-Z-616. GOLD MEDAL Extra Heavy, 20 year guarantee.

Per roll **\$3.00**

f. o. b. CARS CHICAGO

**\$2.75
PER
ROLL**



**Rawhide Stone Faced
Gold Medal
Roofing**

**AS TOUGH
AS ITS NAME~**

RESISTANCE TO FIRE, LIGHTNING, AND FLYING SPARKS
RESISTANCE TO WEATHER, AND ALL OTHERS
RESISTANCE TO ACID, ALKALI, AND ALL OTHERS
RESISTANCE TO ALL OTHERS

**HARRIS
BROTHERS COMPANY**
35th and IRON STREETS
CHICAGO, U.S.A.

Our Roofing Materials Are Guaranteed To Satisfy You

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

NATURAL COLORED RED AND GREY SLATE COATED Roofing

Material all alike in color, weight and manufacture but graded as to quality.

Full 80 to 85 pound stock

Superior Slate Coated Roofing

The name "Superior" describes the quality of this material furnished in red and grey-green, each roll containing 108 square feet. Will furnish free of charge, long or short nails and cement.

Lot No. 13-Z-606. Superior slate coated roofing. **\$2.50**

Per roll

Slate Imitation Shingle Stamped Roofing

Can furnish red and grey-green slate coated roofing stamped in black to represent shingles. In rolls of 108 square feet, complete with long or short nails and cement.

Lot No. 13-Z-612. Slate imitation shingle stamped roofing. Price per roll..... **\$3.25**

Per roll

Special Selected Mill Ends

We have a limited quality of slate coated mill ends which we can furnish either red or grey-green. Rolls contain 108 square feet, running two to four lengths. Long or short nails and cement furnished free.

Lot No. 13-Z-607. Special selected mill ends. **\$2.30**

Price per roll.....

Unselected Rolls

Standard weight and standard color, slate roofing, more or less defective in surface coating. Can be laid on your roof smooth side exposed, defective coating next to the roof. Would appear as smooth surfaced roofing when so laid and make a dandy roof on account of weight.

Lot No. 13-Z-608. Unselected slate roofing. **\$2.00**

Per roll

Slate Roofing—Fifty Inches Wide

This stock is "Seconds" of a high grade slate made by well-known manufacturers, furnished in red or grey, more or less defective as to slate surfacing. Put up two squares to a roll, complete with nails and cement.

Lot No. 13-Z-609. Fifty inch (50 inch) slate, two squares to a roll. Per square..... **\$1.80**

Per square

f. o. b. CARS CHICAGO

**Rawhide Slate Coated
Roofing**
NATURAL COLORED
RED & GRAY
AS TOUGH
AS ITS NAME~

REGISTERED PATENT DESIGN
TRADE MARK
HARRIS BROTHERS COMPANY
CHICAGO, U.S.A.

HARRIS
BROTHERS COMPANY
35TH AND IRON STREET
CHICAGO, U.S.A.

**\$1.80
PER
ROLL**

PAINTED Roofing

\$2.75
Per 100
Square
Feet



Prices Greatly Reduced on Painted Corrugated Sheets!

Lot No. 7-Z-3000. 28 gauge, painted, overhauled, $2\frac{1}{2}$ " corrugated sheets, recommended for roofing. Material has been carefully re-claimed and re-finished—without nail holes. Sheets 24" wide by $5\frac{1}{2}$ ' long. Price per square of 100 square feet..... **\$2.75**

Lot No. 7-Z-3001. Siding sheets. In this grade we offer 28 gauge, painted, overhauled sheets that may occasionally have small nail holes and are therefore especially suited for siding. Sheets 24" wide by $5\frac{1}{2}$ ' long. Can also furnish shorter lengths if desired. Price per square of 100 square feet..... **\$2.50**

Lot No. 7-Z-3002. 26 gauge painted, corrugated sheets. Stock has been carefully overhauled, and reconditioned for good and further service for either roofing or siding. Furnished in $2\frac{1}{2}$ " corrugation only, sheets 24" wide by $5\frac{1}{2}$ ' long, painted either red or black free of charge. Price per square of 100 square feet..... **\$3.00**

Lot No. 7-Z-3003. 24 gauge painted, corrugated sheets. This is the same class of material we have described in the 26 gauge stock except running heavier and recommended where long service is desired. Sheets 24 or 26" wide by $5\frac{1}{2}$ ' long, also shorter lengths if desired. Price per square of 100 square feet..... **\$3.25**

BRICK SIDING

Lot No. 7-Z-3004. New painted Imitation Pressed Brick Siding. Price per square of 100 square feet..... **\$4.25**

BEADED CEILING

Lot No. 7-Z-3005. New Beaded Ceiling Sheets, painted red. Sheets are made with a $\frac{3}{8}$ inch bead on a 3 inch center. Price per square of 100 square feet..... **\$4.25**

ORNAMENTAL STEEL CEILING

Send a diagram of the ceiling you have to cover, store, school house, church or residence and we will quote you low price, send design and plan for erection.

ROOFING ACCESSORIES

Nails	per square	10c
Lead Washers	per square	10c
New Ridge Roll	per foot	20c
Tar Paper to Lay Under Sheets	per roll	45c

Prices Above are F. O. B. Chicago

Going to Paint? Ask for Our Low Estimate!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

GALVANIZED Sheets



\$3.50
Per 100
Square
Feet

Overhauled Galvanized Sheets and Painted Government Sheets

GALVANIZED SHEETS

We offer a limited quantity of overhauled, reconditioned galvanized sheets. This stock is all put through a special process, reclaimed and refinished. Sheets are all 2 1/2" corrugation only and furnished in various lengths. We paint the material free of charge with Red Oxide paint to preserve the galvanizing. We will arrange to sort and ship to you lengths that will work into your best advantage if you will give us the length of your rafters and size of your roof.

7-Z-4000. 28 gauge overhauled, galvanized, corrugated sheets.	\$3.50
Price per square of 100 square feet.....	
7-Z-4001. 26 gauge overhauled, galvanized, corrugated sheets.	\$3.75
Per square of 100 square feet.....	
7-Z-4002. 24 gauge overhauled, galvanized, corrugated sheets.	\$4.00
Per square of 100 square feet.....	

PAINTED GOVERNMENT SHEETS

This is 22 gauge, new painted, 2 1/2" corrugated stock which can be furnished in various lengths and widths. To enable us to fill your order promptly it will be necessary for you to give us the length of your rafters or dimensions of the surface you expect to cover. We will then ship you lengths and widths that will work into your best advantage.

7-Z-4003. 22 gauge, new painted corrugated sheets, all lengths and widths.	\$4.50
Per square of 100 square feet.....	
7-Z-4004. 20 gauge, new painted corrugated sheets, all lengths and widths.	\$5.00
Per square of 100 square feet.....	

TO MANUFACTURERS

We stock new flat, unpainted sheets, suitable for manufacturing purposes from 8 to 26 gauge. This material represents one pass cold rolled, three pass, blue annealed and Auto Body sheets. Advise requirements and we will quote you extremely low prices.

ROOFING ACCESSORIES

Nails	per square	10c
Lead Washers	per square	10c
New Ridge Roll	per foot	20c
Tar Paper to Lay Under Sheets	per roll	55c

Prices Above Are f. o. b. Chicago





Cut Prices on Ajax Roofing!

AJAX ROOFING—a good dependable Grade of roofing—brand new at a very low figure. This material is furnished in standard weights, mostly smooth or sand coated made up of two to four lengths to the roll. Rolls contain 108 square feet, complete with cement and long or short nails.

NOTE THE FOLLOWING LOW PRICES!

Lot No. 13-Z-2001—Ajax light-weight, per roll.....	\$1.25
Lot No. 13-Z-2002—Ajax medium-weight, per roll.....	1.55
Lot No. 13-Z-2003—Ajax heavy-weight, per roll.....	1.90

Extra Heavy Roofing, Per Roll, \$2.25

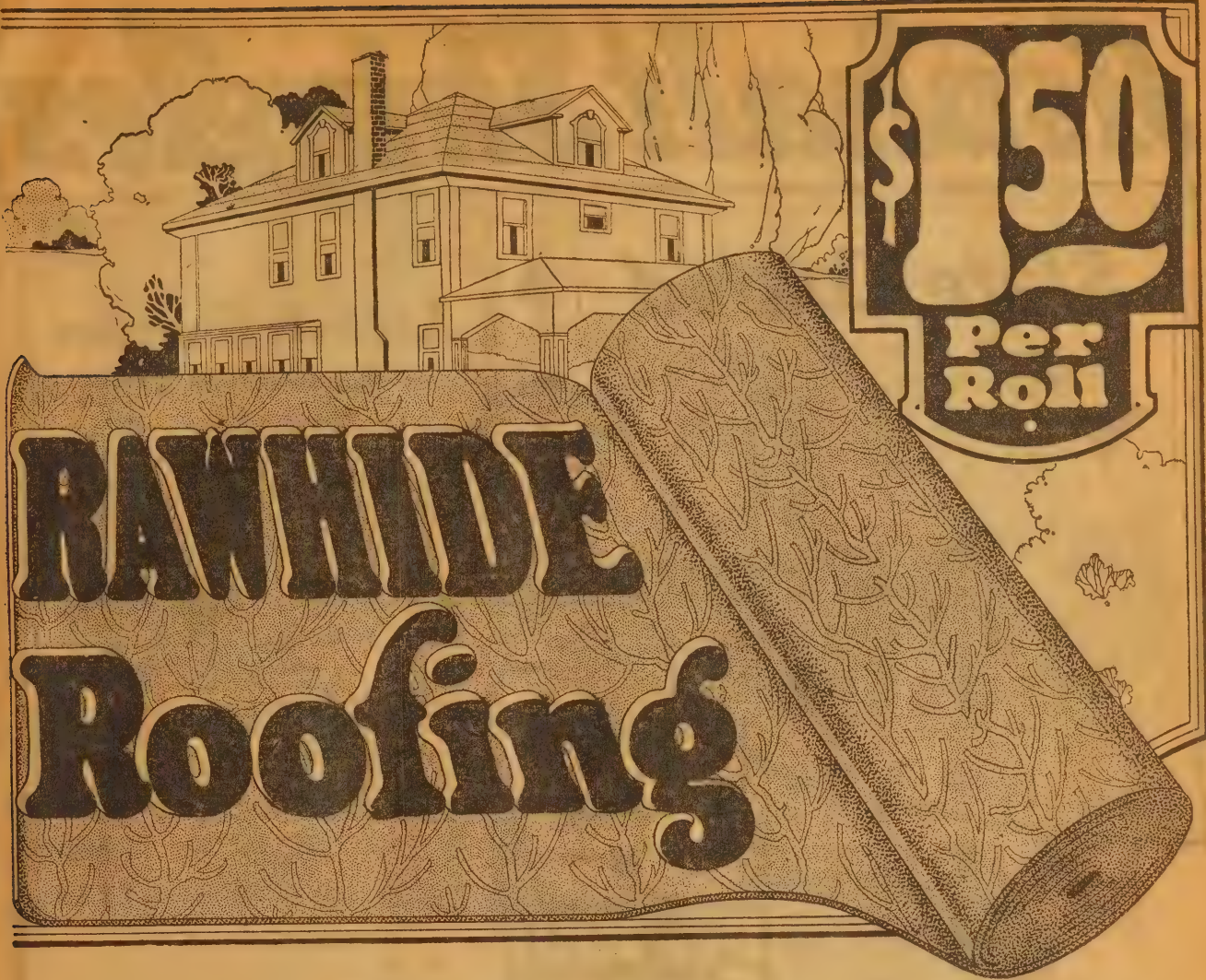
Have just placed in stock approximately three cars of roofing. **ALL HEAVIER THAN STANDARD THREE PLY**. The material is all **EXTRA HIGH GRADE** Stock, made to sell at \$3.50 to \$4.00 per roll. Represents Mica surfaced, Mica Flaked, Double Sanded, Flintkote, Pebble and Rock faced grades. Give us first and second choice. Rolls contain 108 square feet and will be furnished complete with cement and long or short nails.

Lot No. 13-Z-2004—Extra Heavy Standard Roofing, per roll.....	\$2.25
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All Prices Are f. o. b. Chicago

Let Us Figure Your Heating Plant Material

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.



RAWHIDE Roofing

\$1.50
Per Roll

Here's Real Roofing—Tough as Its Name!

CONSIDER RAW-HIDE ROOFING carefully. No better name than "RAW-HIDE" can be found for this pliable, tough roofing—the name tells the story. Thousands of customers recommend it to their friends and come back for another order for their own buildings. **WE GUARANTEE TO REPLACE FREE OF CHARGE EVERY ROLL DEFECTIVE IN QUALITY** within the period of the guarantee below. Every roll contains 108 square feet. Long or short nails and plenty of cement free.

SPECIAL PRICES FOR QUICK BUYERS!

- Lot No. 13-Z-2005—Raw-hide light-weight, 8-year guarantee. Price per roll.....**\$1.50**
- Lot No. 13-Z-2006—Raw-hide medium-weight, 10-year guarantee. Price per roll..... **1.85**
- Lot No. 13-Z-2007—Raw-hide heavy-weight, 12-year guarantee. Price per roll..... **2.05**

REPAIR JOB ROOFING PER ROLL \$1.25

Add to your order a few rolls of Repair Job Roofing. Rolls run in miscellaneous weight, a great deal of it heavy and medium mixed in the rolls. Dandy material to have on hand for a Chicken Coop lining, roofing, repairing, etc. Complete with nails and cement. Rolls contain 108 square feet.

- Lot No. 13-Z-2009—Special Repair Job Roofing, per roll.....**\$1.25**

TAR PAPER, PER ROLL 45c

Good for basement lining, sheathing, etc., and especially recommended to lay under metal roofing to keep the moisture from accumulating on the underside of the sheets.

- Lot No. 13-Z-2008—Tar Paper, 108 square feet to roll.....**45c**

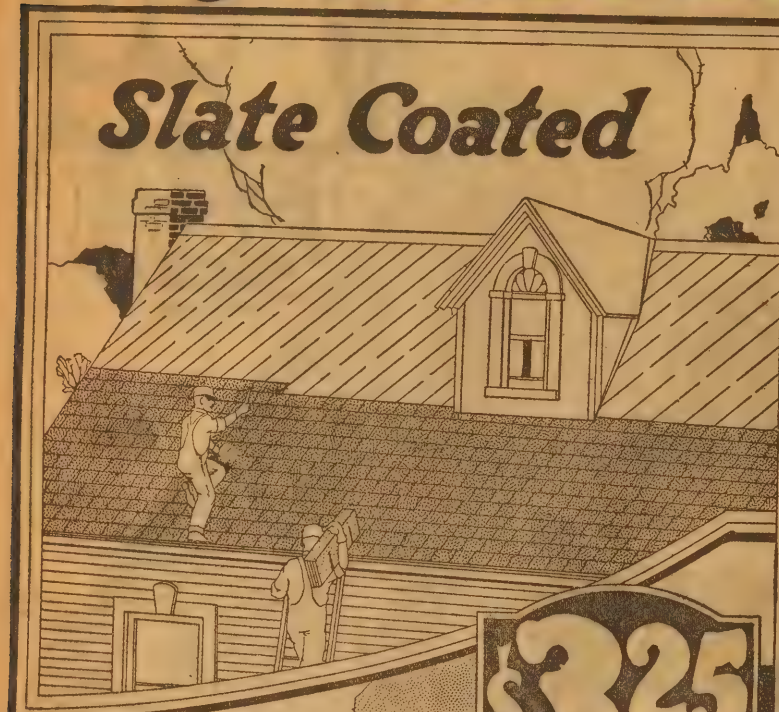
All Prices Are f. o. b. Chicago

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Ask for Our Plan Book of Harris Homes

Asphalt Shingles

Slate Coated



\$3.25
Per 100
Square
Feet

\$5.00

Per 100 sq. ft.
for shingles like
these



Asphalt Shingles at Big Reduced Prices

During this big sale of tremendous roofing products, we offer slate coated shingles, red or gray in two standard, desirable styles.

They are made by standard specifications as to felt, saturation and natural colored ground slate giving you a finished product of standard weight. Either style can be laid over sheathing boards spaced for cedars or on close sheathing. Each square you order will cover 100 square feet of roof surface with all lap.

Two Styles as Follows:

Lot No. 13-Z-2200. Slab shingles — "Four in one"—like the illustration at the bottom of this page. The four shingles make up a strip 80" long by 9½" wide.

Price per square of 100 square feet.. **\$5.00**

Lot No. 13-Z-2300. Individual shingles, same quality of material but 8x12½" in size, laid 4" to the weather and ½" apart. Each square will cover 100 square feet.

Price per square **\$5.00**

Shingle Seconds

We offer the same styles described above in red or gray "Seconds"—Standard weight, but sorted as seconds on account of slight defects in surfacing of the shingles—usually can be laid to cover the defect. A Dandy roofing value.

Lot No. 13-Z-2400. Individual shingles—seconds: Red or Gray.

Price per square of 100 square feet.. **\$4.25**

Lot No. 13-Z-2500. Slab shingles—seconds. Red or Gray.

Price per square of 100 square feet.. **\$4.25**

Roll Roofing—Stamped Like Shingles

We have in stock only a limited quantity of this 85 pound roofing. Some of the roofing is stamped like shingles, with black markings on red or gray background. A small proportion shows alternate diamonds or squares of red or gray slate inlaid over the entire roof giving it the appearance of tile. One roll will cover 100 square feet and we furnish long or short nails and cement.

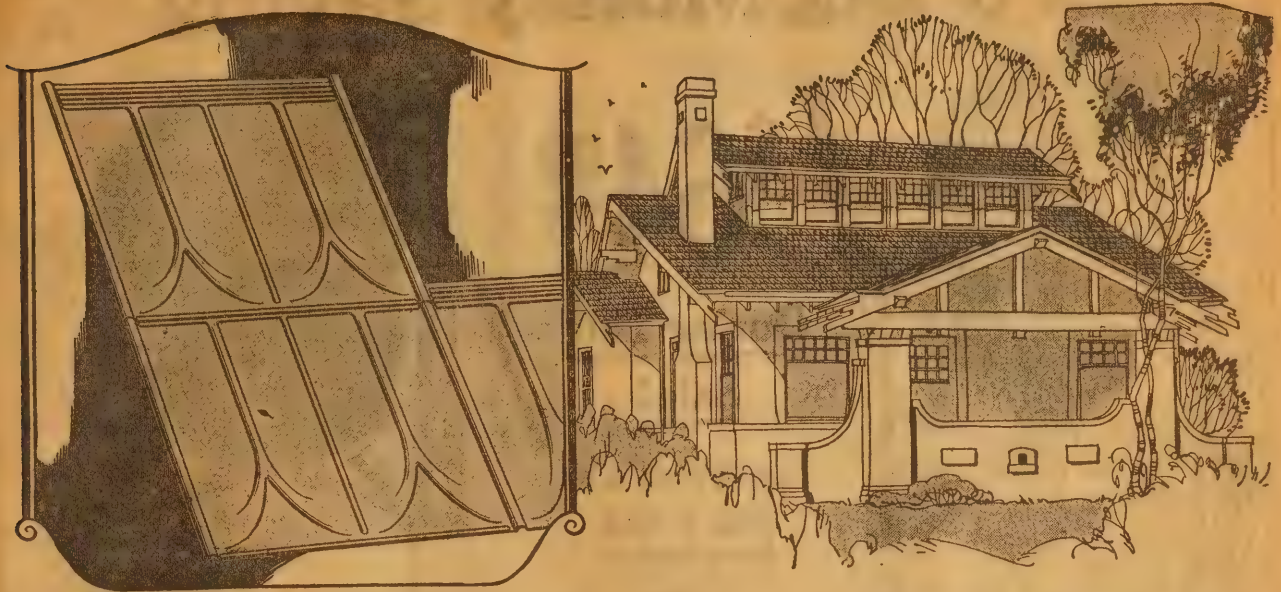
Lot No. 13-Z-2600. Imitation shingle roofing.

Per roll **\$3.25**

All Prices Are
f. o. b. Chicago

HARRIS TWIN-LOCK METAL SHINGLES

Fire Resisting and Fireproof



Per 100 Square Feet **\$3⁵⁰** Half the Price of Cedar Shingles
Lay Two at a Time—Save Labor!

ORNAMENTAL METAL SHINGLES—Note the cut above which represents the pattern of the HARRIS TWIN SHINGLE and also shows the method of laying. The ornamental pattern is stamped on sheets approximately 14" x 18", each sheet carrying the imprint of one full and one half shingle as indicated. NOTE—You lay two shingles while you are laying one and when the entire roof is laid it will present the appearance of individual shingles and you have saved one-half the labor.

EASY TO LAY—These shingles are fitted with a special beaded edge, both sides alike, which are lapped over and nailed through the top of the bead or through the side on the slant. The upper edge shows a series of grooves which enables you to regulate the amount of shingle lapped, according to the pitch of your roof.

These Shingles Offered in Two Colors

- Lot No. 7-Z-5000. Ornamental shingles, painted red. Per square of 100 square feet.....**\$4.50**
 Lot No. 7-Z-5001. Ornamental shingles, painted green. Per square of 100 square feet.....**\$5.00**

Corrugated Shingles

- These shingles are made in the same size sheet, making an entire shingle in a 1 1/4" corrugated pattern. They can be nailed in the same manner above described and are laid usually on broken joints.
 Lot No. 7-Z-5002. 1 1/4" corrugated shingles, painted red. Per square of 100 square feet.....**\$3.50**
 Lot No. 7-Z-5003. 1 1/4" corrugated shingles, painted green. Per square of 100 square feet.....**\$4.00**

Harris Gold Medal Wallboard!

Harris Gold Medal Wallboard—"Xtra Quality"

No. 13-Z-1300. This extra strong board can be used for walls and ceilings; nailed directly to the studding and joist. Strong and tough, resists jars and strains. Sized on both sides. Furnished in 32 in. and 48 in. wide; lengths from 6 ft. to 12 ft. Per sheet as follows:

Size	Price	Size	Price
32x5 ft.....	.65	48x5 ft.....	.95
32x6 ft.....	.80	48x6 ft.....	1.15
32x7 ft.....	.90	48x7 ft.....	1.35
32x8 ft.....	1.00	48x8 ft.....	1.50
32x9 ft.....	1.15	48x9 ft.....	1.70
32x10 ft.....	1.25	48x10 ft.....	1.90
32x11 ft.....	1.40	48x11 ft.....	2.05
32x12 ft.....	1.50	48x12 ft.....	2.25

Harris Economy Wallboard—"Good Enuf"

No. 13-Z-1301. This board is lighter in weight than our Harris Gold Medal wall board, it is sized and furnished in sheets of the same dimensions.

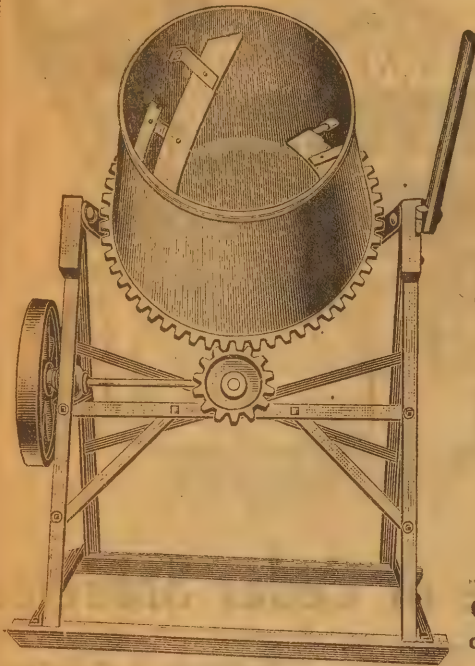
Per sheet as follows:

Size	Price	Size	Price
32x5 ft.....	.50	48x5 ft.....	.75
32x6 ft.....	.60	48x6 ft.....	.90
32x7 ft.....	.70	48x7 ft.....	1.05
32x8 ft.....	.80	48x8 ft.....	1.20
32x9 ft.....	.90	48x9 ft.....	1.35
32x10 ft.....	1.00	48x10 ft.....	1.50
32x11 ft.....	1.15	48x11 ft.....	1.65
32x12 ft.....	1.20	48x12 ft.....	1.80

Wallboard Tape

Recommended for all grades of wallboard—1 1/2" Gummed Wallboard Tape put up in 100-foot rolls.
 Lot No. 13-Z-1333. Gummed Wallboard Tape, 1 1/2" wide, 100 feet to the roll, per roll.....**.15c**

Improved Concrete Mixer at a Big Money Saving



In Working Position

\$64⁰⁰

**During This
Sale!**

Capacity 3-3½ cu. ft.

Mixes a Batch
Every Minute!

Can Be
Operated by Hand
or a 1½ H.P. Engine



In Unloading Position

Your purchase of one of these simple, perfect, inexpensive concrete mixers is the biggest paying investment you can possibly make. We have just completed special arrangements with the manufacturer of these splendid machines to supply our customers with a limited number during this advance sale. The number of these machines we have purchased enabled us to secure them at a big price reduction. And we are passing all of the bargain buying benefits of the savings we made along to you.

With one of these big capacity fast working concrete mixers, you can make those permanent improvements that add so much to the value of any farm. Build your own concrete walks, silos, foundations, floors, etc. Not only will this machine do the work with less help and greater speed but it will save much material. Best of all it will mix properly—and you know the proper mix is essential to the strength and durability of all concrete work.

Farmers everywhere have found a concrete feeding floor a great convenience and saver of feed. With this handy machine you can put in your own feeding floors quickly and with little expense.

Designed Expressly for the Farm!

OPERATION

This splendid concrete mixer has been primarily designed for the farmer, but many small contractors throughout the country have found it highly profitable on account of its simplicity, durability and speed.

The drum is charged on one side and discharged on the opposite side, which eliminates the necessity of wheeling concrete to the forms. Big capacity—holds 3 to 3½ cubic feet to each batch and will mix fully 45 cubic yards of concrete in ten hours or a batch every minute.

The mixing blades work perfectly in either wet or dry concrete. Will also mix mortar or plaster. Built in a handy height and will dump into a wheelbarrow. Note carefully the accompanying illustrations of the machine in working and unloading positions.

CONSTRUCTION

These splendid mixers have been made and distributed for many years—the product of a well known manufacturer, whose name would be readily recognized as a leader in this field. But we agreed not to use their name in our advertisements.

Made throughout of best iron and steel with patented reverse unloading gear which forces a discharge by merely tipping the drum. Perfectly balanced and easy to work. Note the extreme simplicity of construction—the few number of parts. Everything easy to get at, nothing to get out of order to delay your work. Operates perfectly by hand or with a 1½ horse-power engine.

No. 8-Z-364. Harris concrete mixer for hand or power drive; pulley size, 16x3 in.; width over all, 3 ft. 6 in.; height over all, 4 ft. 6 in.; shoveling height, 3 ft.; capacity, 3 to 3½ cubic feet; power requires 1½ h. p.; weight, about 300 lbs.

SALE PRICE, EACH. \$64.00

Consult Our Stocks Before You Buy Anything!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Galvanized Feed Troughs

Painted Black



NON-TIP FEED TROUGHS FOR HOGS, SHEEP AND CATTLE

HERE are the strongest and best feed troughs for all farm feeding. They are made of heavy galvanized iron (about 10 gauge)—no rough edges or sharp corners to harm the stock. The flared legs make tipping impossible. They will not rust, leak or cave in. Made with rounded bottoms easily cleaned—thoroughly sanitary. Cross bars and legs are made of heavy bar iron, securely riveted. Discard your disease breeding, unsanitary wood troughs and replace them with these modern steel troughs now. Before shipment we paint them with a good quality of black paint which adds to their appearance and durability.

**Buy Now
At These
Low
Sale Prices**

\$1⁹⁵

PRICES

Catalogue Number	Width, inches	Depth, inches	Length, feet	Weight, lbs.	Capacity, gallons	Price, each	Lots of 3, each	Lots of 6, each	Lots of 12, each
14-Z-512.....	12	6	5	40	15	\$1.95	\$1.85	\$1.75	\$1.65
14-Z-812.....	12	6	8	65	24	2.95	2.85	2.75	2.65
14-Z-1012.....	12	6	10	80	30	3.95	3.85	3.75	3.65

**Ready Now For
Quick Shipment**



Save Big Money on Guaranteed HOUSE PAINT

\$1.90
Per Gallon



Guarantee
HOUSE PAINT

We Guarantee every gallon of "Harris" house paint to be equal in every respect to the highest priced paints on the market. We guarantee that it will come up to your highest expectations in spreading and wearing qualities, appearance and fastness of color. The purpose of this guarantee is to give you an assurance of satisfaction, and if you are not pleased in every way, or if for any reason you are not satisfied with your purchase of "Harris" house paint, we will replace every gallon you have purchased free of charge.

HARRIS BROTHERS CO.



No Better Paint at Any Price

THE QUALITY of the paint you use should be more carefully considered than probably any other material you buy. The purchase of good paint—the kind that is made from a scientific formula of finest ingredients, is real genuine economy. "Harris" house paint is good paint. It spreads with an evenness over the greatest possible surface and will wear the longest possible time, retaining its appearance and protective qualities. Pure linseed oil, lead and zinc are used as the main body. You can pay more for your paint, but you'll not get better paint than "Harris" paint. Pay less and you'll sacrifice quality.

32 Non-fading Colors to Choose From

White	Maroon	Brown	Russet
Olive	Pea Green	Straw	Light Yellow
Orange	Azure Blue	Bronze	Pink
Drab	Ivory Yellow	Blue	Slate
Chocolate	Lilac	Light Grey	Terra Cotta
Dark Grey	Canary	Oak	Grey
Venetian	Blue Green	Peacock Blue	Buff
Fawn	Cream	Tan	Black

Order No. 9-Z-700

1 quart cans.....Each	\$0.57	5 gallon kit, per gal.....	\$2.00
1 gallon cans.....Each	2.05	25 gallon (½ barrel), per gal..	1.97
50 gallon barrels, per gallon.....	\$1.90		

PAINT and BRUSH

5 Gallon Kit of Harris House Paint and One High Grade 4-inch Brush (Set in Rubber) \$10⁷⁵

As an added attraction for this limited sale, we have made special arrangements to supply our customers with a 5-Gallon Kit of Harris Guaranteed House Paint and a 4-inch Brush with Pure Black Bristles 3½ inches long, set in vulcanized rubber, at this big money saving. The brush furnished is of excellent quality, worth \$1.75. This special offer is made to our customers only during this great sale.

Order No. 9-Z-701—5-Gallon Kit of Harris House Paint and one High Grade 4-inch Brush.....\$10.75



Big Savings in Plumbing Material! See Them!!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Paints for Your Buildings!

BARN PAINT

\$1.30
Per Gallon



Feature Every Necessary Quality!

HARRIS BARN PAINT is made by the same splendid process as Harris House Paint. Only the best ingredients are used in its formula. As a covering for your barns and for other similar outside work, it has no superior. Those who have used Harris paint before know that it can be depended upon to complete a job that will wear perfectly under most severe conditions and positively will not fade. Add to the excellent quality of this paint the money-saving advantages now yours in our low sale prices and you have the most attractive paint offer ever made.

6 Popular Colors to Choose From

REGULAR COLORS

Red Yellow Maroon

SPECIAL COLORS

*Green *Slate *Lead

*The colors indicated as "special colors" above require more expensive color ingredients than the regular colors, and consequently we are forced to advance these prices slightly. Inferior substitutes could be used which would sacrifice quality. We must naturally supply best paint to you under our binding guarantee.

FOR REGULAR COLORS

Order No. 9-Z-702

1 gallon can, each.....\$1.40
5 gallon kits, per gal.....1.36
25 gal. (½ barrels), per gal.. 1.34
50 gal. barrels, per gal.....1.30

FOR SPECIAL COLORS

Order No. 9-Z-703

1 gal. can, per gal.....\$1.70
5 gal. kits, per gal.....1.66
25 gal. (½ barrel), per gal.. 1.64
50 gal. barrels, per gal.....1.60

COMBINATION SAVINGS!



\$7.50 Buys A 5-Gallon Kit of Harris
Barn Paint and A High Grade 4-inch Brush (Set in Rubber)

During the period of this sale only, we offer this special outfit to our customers at this money saving. A 5-Gallon Kit of Harris Guaranteed Barn Paint and a High Grade 4-inch Brush set in vulcanized rubber, 4 inches wide, with pure black bristles 3 ¾ inches long. The brush is the regular \$1.75 kind. This offer expires at the close of this great sale.

Order No. 9-Z-704—5-Gallon Kit of Harris Barn Paint
and a High Grade 4-inch Brush.....\$7.50

*If any of the special colors are wanted, add \$1.50

Guarantee
BARN PAINT

We Guarantee every gallon of "Harris" Barn paint to be equal in every respect to the highest priced barn paints on the market. We guarantee that it will come up to your highest expectations in spreading and wearing qualities, appearance and fastness of color. The purpose of this guarantee is to give you an assurance of satisfaction, and if you are not pleased in every way, or if for any reason you are not satisfied with your purchase of "Harris" Barn paint, we will replace every gallon you have purchased free of charge.

HARRIS BROTHERS CO.

Some Special Savings in Painter's Needs



water proof and sun proof. It is a heavy rubber-like combination of durable oils, reinforced with asbestos fibre. Apply in a heavy coat, using about one and one-half gallons to the hundred square feet.

9-Z-150—

1 gal. can—shipping wt., 15 lbs.	75c
5 gal. can—shipping wt., 75 lbs.	60c
25 gal. 1/2 bbl.—shipping wt., 225 lbs.	50c
50 gal. bbl.—shipping wt., 500 lbs.	45c

45c
Per Gallon

A new method of preserving the life of metal, paper and composition roofing. A liquid compound that will quickly and permanently seal all leaks, cracks and holes in any kind of a roof, making a perfectly water tight covering. This covering will add years of service to your roof. It seals all small holes, caused by rust and deterioration. Absolutely

4 1/2c
Per Pound

Makes a one piece, no seam roof. Guaranteed to stop roof leaks no matter how old the roof. One application of asbestos fibre roof cement will give years of additional service. It stops leaks in tin, wood, felt or paper roofs. Permanently seals leaks in basement walls, leaky gutters and spouting. Apply with a trowel, spreading cement about 1/2 inch thick.

9-Z-151—

5 lb. can	11c
10 lb. can	10c
25 lb. pail	9c
100 lb. keg	7c
300 lb. half barrel	6c
550 lb. barrel	4 1/2c



Harris Auto Enamel



\$1 50
Per Quart

Harris Auto Enamel is particularly made for refinishing automobiles. It is simple to use, and requires no expert knowledge. Applied with a fine brush. You can obtain a smooth surface. No brush marks will show. Complete directions sent with each can. Dries quickly. Supplied in ten colors: Black, brewster green, deep cream, dark blue, battle-ship grey, medium green, yellow, tan, red and white.

9-Z-585—

1 quart can	\$1.50
1 pint can	.80
1/2 pint	.45

Bargains in Good Brushes



RUBBERSET HOME BRUSH

For varnishing, enamelling, staining, or painting. A most durable brush. Selected Chinese bristles, solidly imbedded in hard vulcanized rubber.

9-Z-1301—

2 inches wide .45c

4 INCH WALL BRUSH

This brush is specially manufactured for us from pure black bristles 3 1/2 in. long, vulcanized in rubber. A high grade brush that is guaranteed to give satisfactory service.

9-Z-58 \$1.75

SPECIAL WALL BRUSH

Made of all pure black Chinese bristles 4 1/2 in. long, 4 in. wide, vulcanized in rubber. Suitable for painters or others who use a brush continuously. Packed in individual boxes.

9-Z-1339 \$2.25

Flat Wall Paint

65c
Per Quart



For interior walls. A high grade oil paint which dries to a soft flat tone, possessing an elastic finish. A sanitary paint, which will not rub off; may be washed with soap and water. Will not spot, turn color or fade. It is prepared, ready for use. Eleven colors: White, tan, light yellow, pea green, grey, yellow, pink, azure blue, deep green, maroon.

9-Z-905—

5 gallon cans. Per gal.	\$2.30
1 gallon cans. Per gal.	2.40
1 quart can. Per can	.65

Harris High Gloss Enamel



For fine interior enamel work. These enamels are especially prepared to meet "easy to apply" requirements of the novice or housewife. Particularly adapted for walls and ceilings in bed rooms, bath rooms, and kitchens. Made in twelve beautiful shades: White, pale blue, deep green, vermillion, sea green, rose pink, orange, royal blue, silver grey, green, carmine and black.

9-Z-921—

1 gallon cans	\$3.00
1 quart cans	.80
1/2 pint can	.25

White Washing and Painting Machine

SPECIAL SALE PRICE \$27 50



The most practical and economical machine manufactured for whitewashing and painting. Can be used with either whitewash or cold water, paints, or for spraying trees, 25 ft. high or more. Body is made of 24 gauge galvanized steel, fitted with brass cylinder valve pump, which produces a high pressure. Every machine is equipped with an agitator which works at every stroke of the pump, and keeps the solution thoroughly mixed. Every machine is equipped with solution strainer, and is guaranteed to give entire satisfaction. Ten-gallon capacity, complete with 10 ft. of 3/4 inch high grade hose, 1 nozzle and 8 foot extension rod.

9-Z-921

..... \$27.50

High Grade Varnishes



EXTRA COACH VARNISH

Suitable for the best interior work. Varnish of medium color and good body. The most durable varnish for this grade of work. Can be rubbed or left in the gloss. Dries dust free in three to four hours.

9-Z-1007—

1 pint cans	\$.40
1 quart cans	.65
1 gallon cans	2.00
5 gallon cans	9.00



WEARING FLOOR VARNISH

The highest grade floor varnish. Suitable for use on natural wood or painted floors. An elastic varnish that will not scratch, turn white or show heel marks. A most economical and durable floor varnish.

9-Z-1013—

1 pint cans	\$.45
1 quart cans	.70
1 gallon cans	2.25
5 gallon cans	10.50



FURNITURE VARNISH

A good varnish at an unusually low price. Has a fine gloss and will rub nicely. Light in color and dries dust free in eight hours. Get the benefit of these big sale savings.

9-Z-1001—

1 pint cans	\$.40
1 quart cans	.65
1 gallon cans	2.10
5 gallon cans	9.50

are Carefully Chosen for this Book!




MINERAL ASPHALT PAINT
HARRIS BROS. CO.
CHICAGO

80c
Black
Per Gallon

An ideal roofing coating, for wood, metal or composition roofs. Tough and elastic. The colors produce a beautiful effect, harmonizing with the colors used in your house paint. Made of the best grade Trinidad asphalt, especially treated and combined with pure boiled linseed oil. When dry it forms a tough elastic surface. Is not affected by expansion or contraction, acids, gases, or alkali. One gallon will cover two hundred and fifty feet smooth surface. Supplied in four colors, maroon, green, brown and black.

9-Z-913—	Black	Colors
1 gallon can.....	\$0.90	\$2.25
5 gallon can.....	.88	2.23
25 gallon half barrels..	.85	2.20
50 gallon barrels.....	.80	2.15

\$1 35
Per Gallon


The best wood preservative known. Harris Creosote Shingle Stain is scientifically prepared. The colors are extremely durable, and attractive, and are guaranteed not to fade. This shingle stain is a particularly high grade material, which we guarantee to satisfy you entirely. Can be applied with a brush after shingles are laid, or shingles can be dipped before laying. When applied with a brush one gallon will cover about 150 square feet of surface one coat. For dipping it requires 2 1/2 to 3 gallons per thousand shingles. Supplied in six colors, brown, medium green, moss green, weathered oak, venetian red, and light green.




CREOSOTE SHINGLE STAIN
HARRIS BROTHERS CO.
CHICAGO

9-Z-901.	1 gallon cans, per gallon.....	\$1.45
9-Z-902.	5 gallon cans, per gallon.....	1.42
9-Z-933.	25 gallon half barrels, per gallon..	1.38
9-Z-904.	50 gallon half barrels, per gallon..	1.35

White Lead




WHITE LEAD
HARRIS BROS. CO.
CHICAGO

Our white lead is non-poisonous, is carefully ground and scientifically mixed. Ground in pure oil. Our "Eclipse" lead is recommended as a low priced lead and will give good service. Our "Premier" lead is of guaranteed quality.

9-Z-1113	
"Eclipse" White Lead	
100 lb. kits, per lb.....	10c
50 lb. kits, per lb.....	10 1/2 c
25 lb. kits, per lb.....	10 1/2 c
12 1/2 lb. kits, per lb.....	11c
9-Z-1106	
"Premier" White Lead	
100 lb. kits, per lb.....	12c
50 lb. kits, per lb.....	12 1/2 c
25 lb. kits, per lb.....	12 1/2 c
12 1/2 lb. kits, per lb.....	13c

Lubricating Oils and Greases



LUBRICATING OIL
HARRIS BROS. CO.
CHICAGO

No. 9-Z-601. High grade Tractor Engine Oil tested and approved by leading Tractor manufacturers and highly recommended as a splendid lubricant.

Per gallon		\$1.00
5 gallon cans, per gallon.....		.95
25 gallon barrels, per gallon.....		.85
50 gallon barrels, per gallon.....		.75
Separator Oil Recommended for Cream Separators		
A light colored oil, recommended for hand and power machines.		
9-Z-1019—	Per Gal.	
1 gal. can.....	\$1.25	
5 gal. cans.....	1.20	
25 gal. half bbls.....	1.10	
50 gal. bbls.....	1.00	

Red Engine Oil	
Highest grade lubricating oil. 500 fire test. 200 viscosity test.	
9-Z-10815—	Gal.
1 gal. cans.....	85c
5 gal. cans.....	80c
25 gal. bbl.....	65c
50 gal. bbl.....	60c

Axle Grease

Highest quality refined grease. Lessens friction and lightens draft. Guaranteed to give satisfaction.

9-Z-10847—		
10 lb. pail.....	\$1.40	
15 lb. pail.....	1.90	
25 lb. pail.....	2.95	



AXLE GREASE
HARRIS BROS. CO.
CHICAGO

Cup Grease

High grade transmission grease. Will not gum or harden. Prevents rust and reduces friction. A superior lubrication for general transmission.

9-Z-10843—		
5 lb. pails.....	\$0.90	
10 lb. pails.....	1.70	

Wall Paper Cleaner


For calcimine, wall paper, window shades, and all interior decoration. Absorbs all smoke, dust and dirt. Will not stain or fade.



WALL PAPER CLEANER
HARRIS BROS. CO.
CHICAGO

Paint Cleaner

1-lb. Package **9c**



PAINT CLEANER
HARRIS BROS. CO.
CHICAGO

An ideal preparation for washing paint, walls, woodwork or any surfaces that cannot be cleansed with soap and water. Guaranteed not to damage the furniture or woodwork. Put up in 1 lb. packages, price each.....9c

Priced for Real Economy



INTERIOR SPAR VARNISH
HARRIS BROTHERS CO.
CHICAGO

INTERIOR SPAR VARNISH
Adapted for interior finishes for highest grade work. Light in color. Made from pure, hard gum. Can be left in the gloss or rubbed. Dries hard for rubbing in 48 hours.

9-Z-1017—	
1 pint can....	\$0.50
1 quart can..	.35
1 gallon can..	2.75
5 gallon can..	13.00



OUTSIDE SPAR VARNISH
HARRIS BROTHERS CO.
CHICAGO

OUTSIDE SPAR VARNISH
Recommended for finishing woodwork in bath rooms, or any woodwork that may have hard usage, or come in contact with water.

9-Z-1019—	
1 pint can....	\$0.55
1 quart can..	.90
1 gallon can..	3.00
5 gallon can..	14.00



LINOLEUM VARNISH
HARRIS BROTHERS CO.
CHICAGO

LINOLEUM VARNISH
Applied over linoleum it gives a hard, smooth, elastic finish that will bend with the linoleum. Will not crack. Not affected by hot or cold water. Dries to walk on over night.

9-Z-933—	
1 pint can....	\$0.45
1 quart can..	.70
1 gallon can..	2.25
5 gallon can..	10.50

Harris High Gloss Laquer

Recommended for finishing furniture and woodwork. This laquer is especially prepared so that highest results can be obtained by an inexperienced person. For refinishing woodwork or furniture it has no equal. Scratched and marred pieces of furniture or floors can be made like new by applying one coat of "Harris" High Gloss Laquer. Fourteen shades. Light oak, cherry, gloss white, flat black, rosewood, walnut, dark oak, moss green, gloss black, mahogany, royal red, clear, flat white, and ground color.

9-Z-1101—	
1 gallon cans.....	\$2.75
1 quart cans.....	.65
1/2 pint cans.....	.23



HIGH GLOSS LAQUER
HARRIS BROTHERS CO.
CHICAGO

Harris Step Ladder

Automatic Self Lock

\$200



These ladders are made from selected clear pine, fitted with nail shelf, hinges made of galvanized sheet steel, securely fastened to the flanges. This is a durable ladder quoted at a low price.

9-Z-1244—	
4' 20"	\$2.00
9-Z-1245—	
5' 22"	\$2.70
9-Z-1246—	
6' 26"	\$3.25
9-Z-1247—	
8', 30"	\$4.30

Extension Ladders

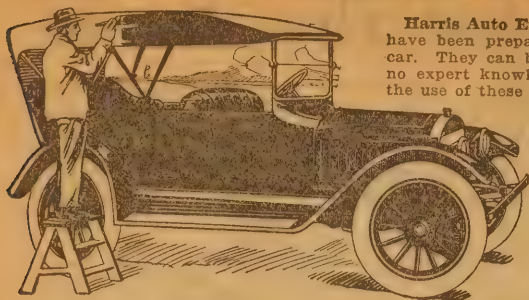
Strongest and most durable extension ladders manufactured. Made of clear selected pine, and hickory rounds. The extension rollers are of an improved design, simplifying the lowering and elevating of the ladder.



9-Z-1250.	Two sections from 20 to 30 ft.—per ft.	33c
9-Z-1251.	Two sections from 30 to 40 ft.—per ft.	40c

\$1.00 extra for 3 section ladder.

SPLENDID FINISHES FOR YOUR AUTO



Harris Auto Enamel and Auto Top and Seat Dressing have been prepared to renew the appearance of your car. They can be quickly and easily applied, requiring no expert knowledge. With a little of your time and the use of these excellent varnishes you can make your automobile look like new.

Top and Seat Dressing especially prepared for leather, rubber or mohair tops and seats and curtains. Fills cracks, covers stains, restores original finish and preserves the life of the fabric.

1 pint cans (sufficient for Ford car)\$0.60
1/2 pint cans......30
1 gallon cans.....\$3.00
1 quart cans (sufficient for touring car).....\$0.80

SAND PAPER



9-Z-349. This is very best quality of paper manufactured. The sand is sharp and applied to paper special process. glue is manufactured especially for the purpose. We guarantee to be the best wear sand paper manufactured.

The No. 00 is the finest and No. 3 is the coarsest. Put up 24 sheet the quire, one number only. Assorted quantities take the sheet price.

Numbers 00 0 1/4 1 1/2 2
Price per 24 sheets.....30c 31c 32c 35c 40c 46c
Six sheets for.....10c 10c 10c 10c 12c 13c

XXX QUALITY EMERY CLOTH

9-Z-351. Made on heavy twilled cloth base and covered with the best quality of Turkish emery. The best wearing emery cloth possible to produce.

Numbers 00 0 1/4 1 1/2 2
Price 24 Sheets.....\$1.00 \$1.62 \$1.55 \$1.67 \$1.80 \$2.00
3 sheets for......45 .45 .45 .45 .50

STEEL WOOL-AND SHAVINGS

STEEL SHAVINGS

9-Z-352. Steel wool unexcelled for household uses—cleaning and polishing aluminum ware, kitchen utensils, etc. Special package 12

9-Z-353. Steel wool is made of fine fibers of steel, resembling curled hairs, and is used as a substitute for sand paper, emery and pumice stone. When used for rubbing down fillers and varnishes, it will be found superior to sand paper or pumice stone.

The steel shavings are coarse and are used for removing rust from iron preparatory to painting. It is also used for cleaning floors or any surface that has been previously varnished.

No. 0. Very fine. Price per lb.\$1.
No. 1. Fine. Price per lb.
No. 2. Medium. Price per lb.
Steel Shavings. Price per lb.

PUTTY Specially adapted for Painters' and Furniture Manufacturers' use. Guaranteed strictly pure. Will not crumble or crack.

9-Z-1107
Price, 20 Pound Cans.....\$1.00
Price, 10 Pound Cans......55
Price, 4 Pound Cans......42

ZINC GLAZIERS' POINTS

For fastening glass in sash. BUREAU STATE SIZING WANTED
9-Z-1111. Price, 1/4 Pound Paper.....13

PAINTERS' COMBINED TRESTLES AND STEP LADDERS

9-Z-1229. Made of clear pine strongly constructed and well braced. Arranged so that plank may be put on either step. Steps are iron braced in front and back.

Height Price
5 feet.....\$3.00
6 feet.....3.60
8 feet.....4.70
10 feet.....5.40

SUPERIOR STEP LADDERS

9-Z-1241. Made of clear pine. Rods under every step. Steel leg spreaders. A strong, safe ladder, fitted with pail shelf, which can be readily folded up out of the way when not in use.

Feet Feet Feet
Height 5 6 8
Price Each.....\$3.35 \$4.05 \$5.40

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

PREMIER COLORS IN OIL



9-Z-817. THE STRONGEST, MOST DURABLE UNFADING COLORS OBTAINABLE. For use in tinting or may be used as it is furnished with the addition of proper thinners. Put up in 1 and 5-pound cans.

Colors: 1 lb. cans
Drop Black\$0.30
Ivory Black30
Coach Black30
Lamp Black45
Prussian Blue1.25

Ultramarine Blue45
Cobalt Blue68
Raw Umber27
Burnt Umber27
Raw Sienna27
Burnt Sienna27
Vandyke Brown54
Chrome Green35
Blind Green35
Scarlet Vermilion90
Tuscan Red60
English Venetian Red20
Chrome Yellow (Light)36
Chrome Yellow (Medium)36
Chrome Yellow (Orange)36
Yellow Ochre20
English Rose Pink60
English Rose Lake60
Light Oak Graining30
Dark Oak Graining30
Antique Oak Graining30
Walnut Graining30
Cherry Graining30
Mahogany Graining30

GLUES - - - GLUES

9-Z-331. FIRST GRADE FLAKE GLUE. Suitable for the requirements of the woodworking trade. Can be used on both soft and hard woods. Is especially adapted for furniture repairing. Can also be used for making printers' rollers, emery wheels, white mouldings or any other purpose where great strength and flexibility are required.

Price per pound.....38c
Price, 100-pound drums, per pound.....36c
Price, 200-pound drums, per pound.....35c

9-Z-333 XX FLAKE CARPENTERS' GLUE. Specially adapted for cabinet makers, carpenters, chipping glass and general repairing.

Price per pound.....31c
Price, 100-pound drums, per pound.....27c
Price, 200-pound drums, per pound.....25c

9-Z-335. XXX KALSOMINE GLUE. A thin cut pure sizing glue, used largely by kalsominers, also by cabinet makers for high-grade joining.

Price per pound.....28c
Price, 100-pound drums, per pound.....24c



ROPE EXTENSION LADDERS

42c Per Foot

9-Z-1221. Top section raised and lowered by rope and pulley attachment. Fitted with improved automatic locking hooks, furnished only in two sections.

Lengths, 20 to 30 feet. 42c
Price, 30 to 40 ft. Per Foot.45c

HARRIS VARNISH STAINS

Stains and Varnishes in One Operation



Recommended for use over a surface already varnished or painted, such as old furniture, varnished or painted woodwork. It is necessary, in order to obtain the best results, to use a stain of a similar shade as the old finish. You cannot finish a Mahogany chair Light Oak by applying Light Oak Varnish Stain. If a change of color is desired, we would recommend the use of our Harris Gloss Lacquer. By using the Ground color as a first coat and the Harris Gloss Lacquer as a finishing coat the change of color can be made. Harris Varnish Stain dries hard with a high luster and is easily applied with a varnish brush. It is made in the following colors: Cherry, Mahogany, Rosewood, Dark Oak, Light Oak, Walnut, Antique Oak.

9-Z-171. Per half pint can.....20c
Per 1-pint can.....30c | Per 1/2-gal. can.....\$0.96
Per 1-quart can.....52c | Per gal. can.....1.80



OIL STAINS

A Perfect Imitation of Natural Wood

Used for staining interior woodwork and other work not finished. Dries with a flat finish. One or two coats of varnish will produce a fine glossy surface. It is easily applied with a varnish brush. Made in the following shades: Cherry, Dark Oak, Mahogany, Light Oak, Rosewood, Walnut, Antique Oak.

Cherry, Dark Oak, Mahogany, Light Oak, Rosewood, Walnut, Antique Oak.

Prices on above shades: 20c
9-Z-173. Per half pint can.....20c
Per 1-pint can.....30c | Per 1/2-gal. can.....\$0.95
Per 1-quart can.....52c | Per gal. can.....1.80

HARRIS LIQUID WOOD FILLER

For filling or first coating any kind of close grained wood. Thoroughly seals up wood pores, and prevents absorption of moisture. This wood filler is transparent, does not need to be rubbed. Recommended for wood work where one or two coats of varnish are to be applied.

1 quart cans, each.....\$0.60
1 gallon cans, per gallon.....1.80
5 gallon cans, each.....8.00

FARM OR LONG LADDERS



9-Z-123. Sides are made of clear pine. Hickory rungs fastened in the same manner as our extension ladders. A strong, rigid ladder, suitable for all general purposes.

Length Price
10 feet.....\$3.00
12 feet.....3.60
14 feet.....4.20
16 feet.....4.80
18 feet.....5.65
20 feet.....6.30

Bargains in Painting and Finishing Materials

Bath Tub Enamel



An ordinary iron tub can be made to look like the finest porcelain tub by the use of our Bath Tub Enamel. Produces a hard, smooth, highly polished and non-absorbent surface. Effectually resists the action of hot and cold water, soaps and other preparations used in baths. In fact, it will resist the wear and tear which bath tubs usually undergo. With one pint you can do over and give it that new effect of an iron, tin or paper tub, or you can use it with the same remarkable results on sinks and wood and iron work about the house. No skill is required. It can be easily applied with a 1½-inch varnish brush and will dry over night.

9-Z-903...Half pint.....**35c**
Pint.....57c Quart.....\$1.00

Harris Stove Pipe Enamel



9-Z-935. Harris Stove Pipe Enamel is the best coating for stove pipes, stoves, furnaces, grates, smokestacks, iron fences. Will give any iron surface an enamel finish. Wears longer and has a smoother, more elastic finish than any other stove pipe enamel on the market. We have reduced to a liquid state a mineral of volcanic deposit of intense blackness. This liquid enamel will consequently withstand heat and retain its beautiful, brilliant, black luster. It will not peel or burn off. It must be applied when the surface to be painted is cold; it is ready for the brush and dries quickly. A pint is sufficient for six lengths. It is put up in black only.

Price, ½ pint.....**15c**
Pint.....22c Quart.....39c Half Gallon.....75c

Kalsomine in 16 Colors



Can be applied by anyone. Shipped in powdered form, ready for use by mixing in hot water. Furnished in white, pea green, light green, lavender, blue, salmon pink, light pink, light tan, buff, grey, green, ivory and yellow. Put up in 4-lb. packages, enough for ordinary sized room.

9-Z-915. Price, per package.....**50c**



Painters' Time Saver

With this little tool you can paint as fast as you like and need have no fear of spoiling the decorations. Just the thing for the painter, finisher and housewife. Made of light metal, highly polished. No danger of spoiling the wall paper, window panes or door glass, etc. Also used when washing woodwork. Shipping weight 8 oz.

9-Z-13001. Price, each.....**20c**

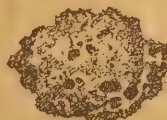
Wire Screen Enamel



Makes screens look like new. Does not clog the mesh. Dries hard and quickly. Green or black.

9-Z-931.
Gallons.....\$1.50
Quarts......45
½ pint......20

Auto Sponge



Large Sponge, especially adapted for cleaning automobiles. A sponge that is guaranteed to give best service.

9-Z-580.....**25c**

FREE!

PAINT COLOR CARD

The most complete and attractive paint color folder ever produced. Mounted with chips showing the actual colors of Harris guaranteed paints, stains, lacquers, enamels and calcimine. Makes it easy for you to select the exact colors you wish. Ask for your copy now.

Harris Denatured Alcohol Shellac

Made from the finest grades of Guaranteed Pure Gum Shellacs in Denatured Alcohol. Used as first coat on furniture and all interior woodwork, except floors on which varnish is to be applied. Dries hard in about 2 to 4 hours. Will cover from 300 to 400 square feet, one coat. Pure Orange Shellac will give the wood an Oak color. White shellac is used where no color is desired. Also recommend it for coating knots and sappy spots before painting.

9-Z-1039. Pure Orange Shellac.
Pt. cans Qt. cans ½ Gal. cans 1 Gal. cans
80c \$1.44 \$2.40 \$4.20

9-T-1041. Pure White Shellac.
Pt. cans Qt. cans ½ Gal. cans 1 Gal. cans
90c \$1.50 \$2.70 \$4.50

Harris Paste Wood Filler

9-Z-1051. All hard or open-grained woods such as oak, ash, etc., should be filled in order to obtain a perfect varnish. Our paste wood filler is better than any other, as it completely fills the pores, making an impervious surface over which to varnish. Apply with a brush and after allowing 20 to 30 minutes to set, wipe off smoothly with a rough piece of burlap, wiping across the grain. Allow at least 24 hours for the filler to dry. Sandpaper the surface smoothly and you are then ready for the varnish.

Ten pounds will fill about 450 square feet. Made in three shades, natural, light oak and dark oak.

1 pound can.....20c 5 pound can.....90c

Premier T. Japan

9-Z-1025. Is a very reliable heavy bodied oil drier. Will mix with any paint formula without any bad results. Is transparent and has a tendency to add durability to paint instead of burning up the durable qualities of the oil. It would be impossible to make a more practical and serviceable Japan.

Pint Quart ½ Gal. 1 Gal. 5 Gals.
30c 45c 85c \$1.45 \$6.40

**\$2.20
Per
Gallon**

Harris Interior Floor Paint

Harris Durable Floor Paint. Specially prepared and guaranteed to resist wear, washing with hot water and scrubbing, retains its bright shiny surface. Paint dries overnight with a high gloss. Remains dust free and will be hard enough to walk on in twenty-four hours. Made in the following colors. Grey, russet, yellow, red, lead, green, tan and maroon. Specify color desired when ordering.

9-Z-809. Harris Ready Mixed Floor Paint—
5 gallon cans, per gallon.....\$2.15
1 gallon cans, per gallon.....2.20
1 quart cans......67

Harris Porch Floor Paint

**\$3.70
Per
Gallon**

Harris Porch Floor Paint. Specially prepared for floor work of porches and stairways. Guaranteed to resist the effects of rain, sun or most severe weather. It is particularly made of highest grade ingredients, which give the greatest preserving and resisting qualities for outside wear. Dries overnight, and obtains a high luster. Made in the following colors: Grey, russet, yellow, lead, red, green, tan and maroon. When ordering specify color desired.

9-Z-810. Harris Durable Porch Floor Paint—
5 gallon cans, per gallon.....\$3.70
1 gallon cans, per gallon.....3.75
1 quart cans.....1.00

Harris Weather Proof Cement Coating

Cement Wall Coating

Strictly formulated after careful tests to meet the exact physical and chemical requirements of a masonry surface. Guaranteed the most efficient and damp-proofing treatment. It penetrates into the pores of the surface, and after hardening thoroughly seals them. Will not wash off. Stands the hardest usage. An ideal paint for hotels, hospitals, schools or wherever cement is used. Furnished in dark cement, moss green, tan, brown, copper color and slate.

9-Z-1201. Cement Wall Coating—
50 gallon barrels, per gallon.....\$2.60
25 gallon half barrels, per gallon.....2.65
5 gallon kits, per gallon.....2.70
1 gallon cans, per gallon.....2.75
1 quart cans, each......75

Cement Floor Coating

On ordinary floors it is almost impossible to make them look clean, but with our Harris Cement Floor Coating they not only make an attractive appearance, but are durable and it is almost impossible for any dust to lie on the surface. The concrete absorbs moisture so rapidly that it is impractical to clean them by ordinary methods.

Harris Cement Floor Coating makes the surface waterproof and at the same time so binding the particles that the dust making feature is eliminated. We can furnish same in the following colors: Cement, Pearl Gray, Slate, Terra Cotta.

Lot No. 9-Z-1211. One quart cans.....**\$0.75**
Lot No. 9-Z-1215. One gallon cans.....**\$2.75**
Lot No. 9-Z-1217. Five gallon kit, per gallon.....2.70

HARRIS SIMPLIFIED

INSTALLED QUICKLY AND ECONOMICALLY

OUR PERFECTION

The Best Sectional Home

EFFICIENCY and service guaranteed. The name "Perfection" not only applies to the Trade Name of our boiler, but for service. We back these boilers with our entire capital against any boiler on the market, with the absolute assurance that the "Perfection" Boiler represents the highest grade of efficiency in design, workmanship and material that can be made. They represent the "Top-Notch" of perfection in practical house heating boilers.

For over twenty years we have been experimenting and improving, and this boiler now stands as perfect as it is possible to make it. We do not know of one point that has been overlooked or where it could be improved. An absolute guarantee is given that these boilers are all we claim them to be, or will refund your money in full, plus the freight charges you paid. Our name on these boilers protects you against an inferior article.

We are the originators of selling direct to the consumer complete Hot Water and Steam Heating Plants. With the aid of our FREE EXPERT ENGINEERING SERVICE, any man with ordinary intelligence can install a modern heating plant in any home, new or old, and thereby eliminate much of the unnecessary installation expense, which increases the big saving already represented in our prices.

That our ideas are correct is evidenced by our enormously increasing business. From ocean to ocean and from the uppermost points in Canada to the South, our heating plants have been installed with absolute success. We have been engaged in selling Modern Heating Plants for 20 years. Write us for heating information. Give us the general facts concerning your particular proposition. We'll do the rest and surprise you with the simplicity of our methods.

SIMPLE TO SET UP

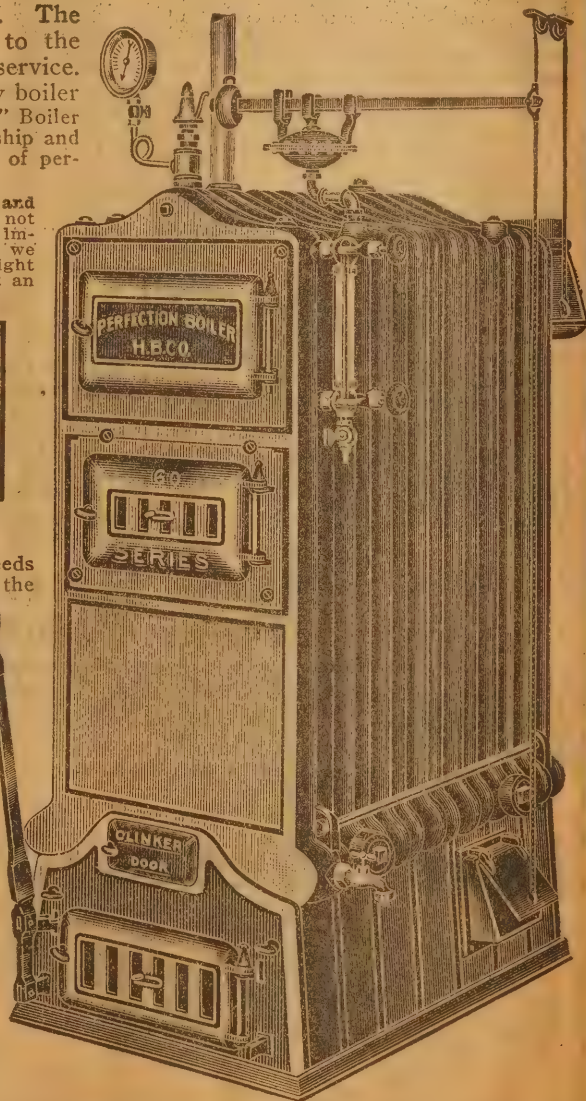
These boilers are shipped in sections fitted together. It needs no expert to set up. You simply assemble the base and mount the boiler. Put on the doors and trimmings and it is finished. Experience not necessary. Anyone can easily set up one of these boilers in two hours' time, without any trouble. Easy to handle. Will go through the narrowest basement doorway.

Cast Iron is Perfection. Do not let the manufacturers of other boilers influence you with statements that Cast Iron Boilers will crack, that the Nipples that connect the sections will rust out. This is done simply to sell other boilers. The public demand for hot water boilers has finally come to the Square Sectional Boiler. On account of the great results that have come from their universal use, the demand for Cast Iron Boilers is becoming greater every day and the public have come to the final conclusion that for Efficiency and Economy they are the best. It has been demonstrated by actual use between a Cast Iron and a Steel Boiler, each operating individual plants, that the Steel Boiler would rust and corrode as steel is a substance to which foreign matter will adhere; the same thickness of cast iron as steel will outwear the Steel four times, under ordinary conditions and more especially under the severe conditions which are met in a Heating Boiler.

OUR BINDING GUARANTEE

Fully protects you regarding all material contained in your heating system, which is also considered an important feature. All boilers and radiators are thoroughly tested before leaving our plant.

Send us a rough sketch of your building and our expert Engineers will figure your plant for you. Wonderful bargains in modern, up-to-date Heating Plants.



SYSTEMS OF HEATING



WITH THE AID OF OUR EXPERT ENGINEERING SERVICE

CAST IRON BOILER

Heating Boiler in the World

Just a Few Voluntary Testimonials

Save One Hundred Dollars
 Sioux City, Iowa.
 Harris Bros. Co., Chicago, Ill.
 Dear Sirs: After giving our heating plant a good test in 20 below zero weather, and to tell you it works simply fine. We don't think we use any more coal than we did in our two stoves, and heat every room. We have figured that we saved One Hundred Dollars by getting the plant direct from you. If you have any prospective buyers in this locality, you need not hesitate to refer them to us.
 Wishing you a prosperous New Year, yours respectfully,
 W. M. Ruth, 1822 Ingleside Ave.

Inspection Invited

Chicago House Wrecking Co., Chicago, Ill.
 Gentlemen: It is with great pride and satisfaction that I write this letter to the firm.
 I bought a steam heating plant of you on Sept. 10th and I wish you to know that I am perfectly satisfied with it in every way. I got a No. 162 boiler and 7 radiators with a capacity of 513 ft. and all piping and asbestos covering. I am proud of this outfit and I know there is not a better or more economical heating plant in the city of Chicago. I consider your engineers the best in figuring on what radiation a man will need in building. I had estimates from several other firms, but none of them figured as liberal radiators as your engineers, and still your bid was the best, not the lowest.
 If anyone is in doubt about your material, send them over to look at my plant, or let them write to me and I will most cheerfully answer their letters.
 I am unable to find words to express my entire satisfaction with the system you sold me. It saved me exactly \$350.00. Allow me to remark that your drawings are so simple and complete that no man who has any brains can go wrong. It took me just 17 evenings from the time I commenced putting up plant till I was done and had steam on boiler. Very respectfully,
 John M. Larson, 4350 Belmont Ave.

THE HIGHEST AMOUNT OF EFFICIENCY ATTAINED WITH CAST IRON BOILERS

Some manufacturers recommend the use of a steel boiler. This might apply to a boiler for power purposes that will have to stand an unlimited amount of pressure, 200 or 300 pounds; but for house heating purposes, cast iron is certainly the proper material to use, for the pressure will, at the most, not exceed 10 pounds.

When ordering, consider the decided advantages, durability, efficiency, design, etc., which are featured in our "Perfection" Boiler.

ANY KIND OF COAL USED IN PERFECTION BOILER

It does not matter what kind of coal you use in these boilers, either hard or soft. The great advantage which these boilers have as a soft coal burner lies in the simplicity of cleaning. The entire cleaning of the flues is done from the front of the boiler, by opening the clean-out door and running the flue brush through each opening two or three times, making a thorough cleaning in the most efficient manner. The boiler should be cleaned as often as possible when using soft coal. The simplicity of the flue arrangement makes it very easy to clean them.

Your particular attention is called to the entire firepot, surrounded by water. The cold water being supplied to the bottom of the boiler gradually becomes heated, rises to the top and is taken off with proper arrangements of piping to supply the various radiators.

ROCKING GRATES

Every grate bar in our boilers is mounted on an axis and connects with a common connecting bar underneath. This connecting bar is attached to a lever located at the side of the boiler, and by operating this lever every grate bar in the entire boiler can be made to rock, and the top of the grate surface on which the fire bed rests is converted into a veritable grinding machine when these grates are being shaken, and it only takes very little shaking of the grates to get all of the surplus ashes out of the fire bed and get the fire going with a bright red heat through the entire grate surface of the boiler. These grates positively prevent any dead corners in these boilers, as any ashes that might collect in these corners will always find its way down, and once it reaches these grinding grates it is bound to be discharged into the ash box.

No heating proposition is too large for us; whether you have a home, restaurant, hotel, club-house, factory, green-house, brooder, theatre or any other kind of building to heat, we are ready to give you the benefit of our many years of actual heating experience.

Read What Satisfied Users Say

Their Plant Sold Three More

Adrian, Mich.
 Harris Bros. Co., Chicago, Ill.
 Dear Sirs: As I just finished connecting up and started one of your 900 ft. Hot Water Plants, I thought I would write you in regard to it as I have surprised everybody as to the temperature of water that I can get without boiling. And this afternoon I ran the thermometer up to 235° without boiling. The same I can prove by three parties that are thinking of installing plants next season. The plant works like a bird and they are very much pleased with it. Will help you all I can. Yours,
 Thomas Earl, 13 West Beecher St.

Proved Satisfactory

Dayton, Ohio.
 Harris Brothers Co., Chicago, Ill.
 Gentlemen: The hot water plant ordered from you and started November last is proving very satisfactory and we are so much pleased with it and also pleased the way the Harris Brothers do business. Everything was carried out according to contract and if you want to deal with a Company that is prompt, deal with this one.

We are burning soft coal and find it will do the work if you have a good draft. These heaters can be installed by anyone, as everything is shown so plain with instructions that you can't make a mistake. We have a six room house and we saved \$75 in this plant.
 W. R. Mitzner, 409 Hughes St.

No Shortage of Material

Logansport, Ind.
 Harris Bros., Chicago, Ill.
 Dear Sirs: The hot water heating plant purchased a few months ago was received complete in every respect. There was no shortage in material. As I have had some experience in heating, it was very easy for me to install. It took me five mornings to run all the pipe and connect up the radiators.
 I think I have saved \$100.00 on this plant. The tools you sent me are in good shape and as I have no more use for them I would like to know if I can return them and what you will charge me for the use of them.
 Yours very truly,
 Arthur B. Cassube, 931 20th St.

PRICES AND DIMENSIONS OF OUR PERFECTION CAST-IRON BOILERS

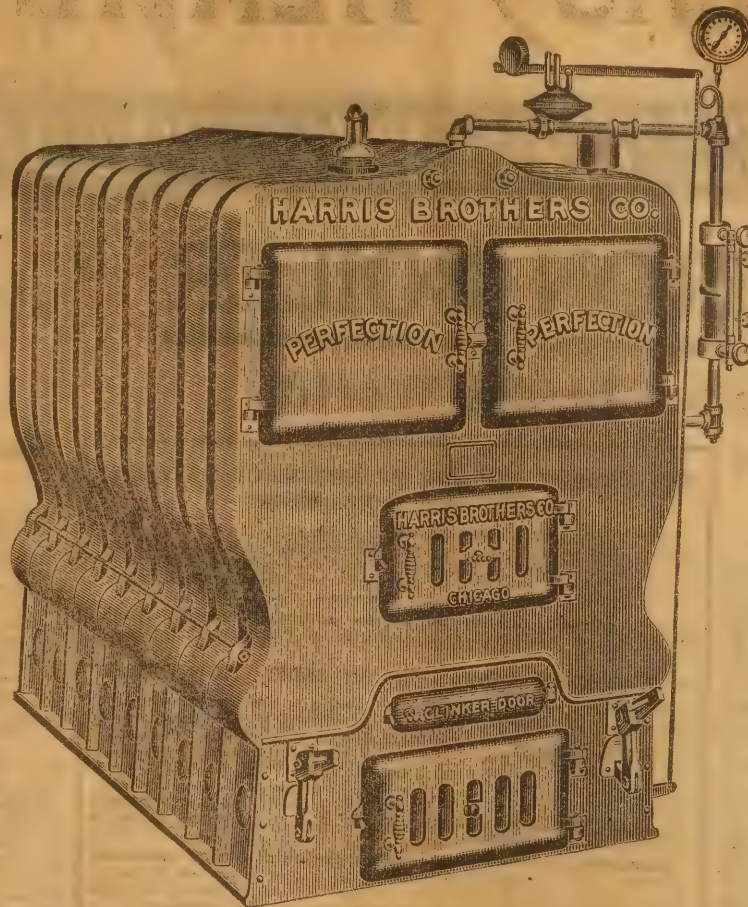
F. O. B. FACTORY IN WESTERN NEW YORK

Number	Size of Firepot	Size of Smoke Pipe	Floor Space, Including Smoke Box	Tappings at Flow and Return	Height to Water Line (In Steam Boiler)	Direct Water Radiation	Direct Steam Radiation	Shipping Weight in Lbs.	Price on Hot Water Boilers	Price on Steam Boilers
17-Z-64	13x12	7	22x20	2-2	38 1/4	300	150	590	\$ 45.75	\$ 60.75
17-Z-65	13x16	7	22x24	2-2	38 1/4	400	225	675	57.50	72.50
17-Z-66	13x18	7	22x28	2-2	38 1/4	525	300	835	68.75	83.75
17-Z-67	13x21	7	22x32	2-2	38 1/4	625	375	915	80.00	95.00
17-Z-175	17x17	9	27x28	2-2 1/2	48	750	475	941	84.00	99.00
17-Z-176	17x21 1/2	9	27x32	2-2 1/2	48	925	550	1123	96.50	111.50
17-Z-177	17x26 1/2	9	27x36	3-2 1/2	48	1100	650	1305	113.00	128.00
17-Z-178	17x30	9	27x40	3-2 1/2	48	1300	750	1487	130.00	145.00

Above prices are all F. O. B. our factory in Eastern New York. We will quote Freight Prepaid or F. O. B. Chicago prices on request.

Cast Iron Sectional Boilers for

The Most
Conveniently
Installed
Easily
•Operated
Steam and
Hot Water
Boilers Made



"Perfection"
Boilers
Are the
Perfected
Product
of an
Acknowledged
Authority

Perfection steam and hot water boilers as they are offered to you today will be the perfected result of more than fifty years' practical experience. They are the product of one of America's leading heating apparatus manufacturers and are completely built in a large, splendidly-equipped plant under the supervision of acknowledged experts. Perfection boilers are designed particularly for use in large heating work. They are conveniently installed; being sectional, they are built up together—no additional expense for elaborate brick work. The ease with which Perfection boilers are operated with greatest efficiency—their ability to heat quickly, steadily and powerfully with utmost fuel economy—are advantages that you will appreciate.

Highly Perfected to the Last Detail

In constructing our Perfection Boilers, particular attention is given to the maintenance of a proper ratio of the grate to the boiler surface. This and other important features of design, construction and finish to the last detail have made Perfection Boilers more efficient than any other cast iron sectional boiler on the market. They are made of finest cast iron, all parts being accurately machined and fitted; sections tested to 100 lbs. hydrostatic pressure.

Efficiency Proved Under Test

For large hot water heating plants or low pressure steam heating plants, these cast iron sectional boilers have proved themselves far superior to any other boiler on the market. If you intend to install a heating system in a large apartment building, hotel, school building, church, residence or any large building where you intend to have the heating system last as long as the building, a Perfection Boiler should be your choice.

Made in Unit or Sectional Style

Perfection steam and hot water heating boilers are made on the unit or sectional principle. Their capacity can be increased or diminished by adding or taking from the sections. Should the building in which you install a Perfection Boiler be enlarged at any time, if the boiler is in use, it is easy to increase the heating capacity by simply adding a sufficient number of sections to meet the requirements.

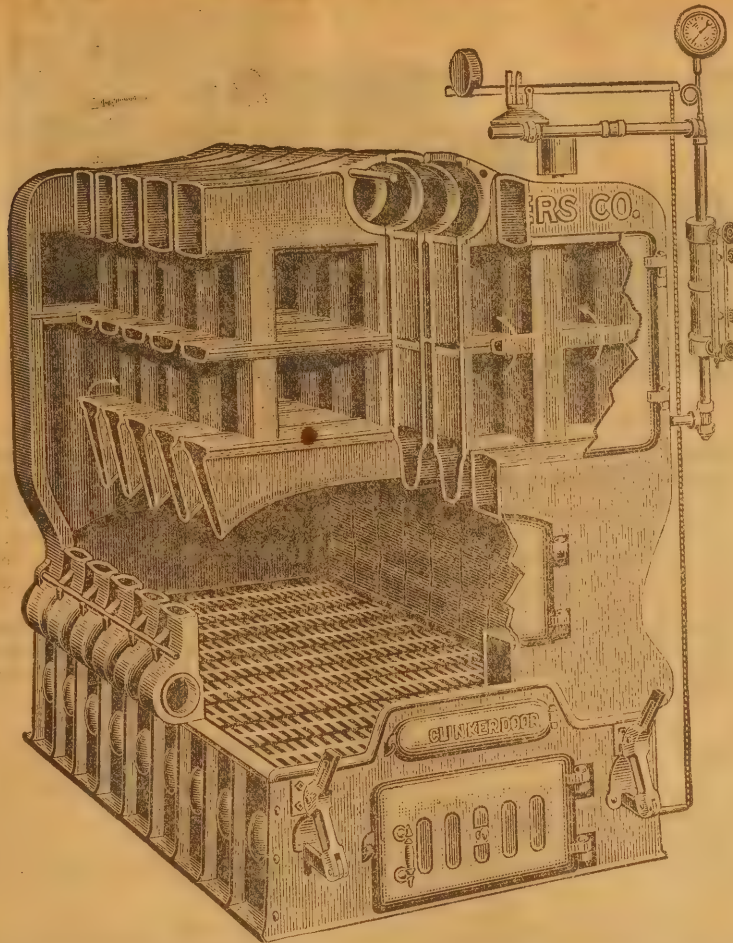
Improved Push Nipple Connections

Perfection steam and hot water boilers are made with improved push nipple type for joining the sections. This connection consists of heavy machine turned smooth tapered nipples made of cast iron and held together by heavy tie rods. These connections are so arranged that they are not exposed to the action of the fire and are unaffected by expansion or contraction of the sections; tight permanent joints at all times. These connections enable us to design Perfection Boilers with low broad proportions.

Let Us Estimate Your Heating Plant!!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Large Steam and Hot Water Plants



Deep
Combustion
Chamber
and
Greatest
Possible
Amount of
Heating
Surface

Long
Travel of
Smoke and
Gases
Utilizes
All Heat
Insuring
Greatest
Fuel Economy

A glance at the sectional view above will give you an excellent idea of the superiority of Perfection Boilers over all other boilers of this type. Note especially the deep combustion chamber and the enormous amount of heating surface pressed to the action of the fire. This feature, combined with the long travel of gases, utilizes all of the effective heating units, giving efficiency with the most economical consumption of fuel. This also insures an immediate response to the action of the fire and quick heat to all parts of your building. All boiler ratings stated below are conservatively made according to accepted standards and are derived from gas in exhaustive tests which perfected their safety. They are based on a standard of 2 lbs. pressure maintained in the boiler for steam and 180 degrees for hot water. Perfection boilers are perfectly adapted for soft coal burning. If you intend to use soft coal, select your boiler in one size larger than would be required for hard coal.

Quickly and Easily Cleaned

Perfection boilers are equipped with a large front and rear clean-out door, which gives you free and easy access to every part of the fire surface. This permits a thorough cleaning of all interior parts of the boiler. In order to obtain efficiency and greatest power of economy, these surfaces should be kept clean at all times.

Splendid Grate Arrangement

Notice especially the grate arrangement. The grate bars are divided into two sections, each operated by a separate lever which enables you to agitate the entire body of the fire or only half of it as the occasion requires. By removing the front panel of the ash pit, the entire grate frame can be withdrawn. This gives you free access to every part of the grate.

Prices and Specifications of Perfection Boilers

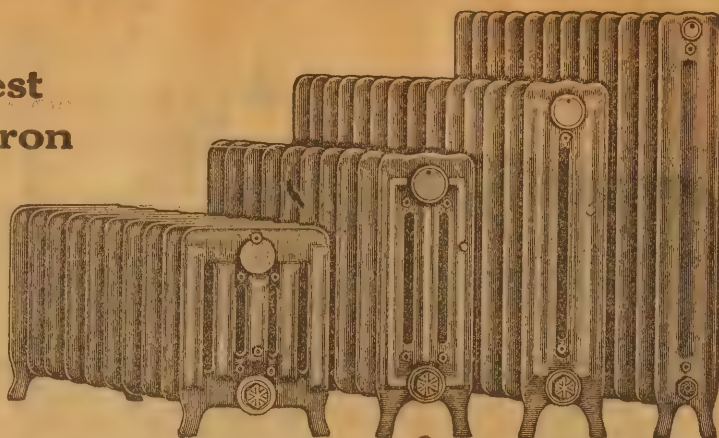
Number	Size of Grate, Inches	Area of Grate, Sq. Feet	Hot Water Rating Sq. Feet	Steam Rating, Sq. Feet
17-Z-224	22x20	3.35	1,075	650
17-Z-225	22x26 $\frac{3}{4}$	4.03	1,400	850
17-Z-226	22x32 $\frac{3}{4}$	5.00	1,725	1,050
17-Z-227	22x39 $\frac{1}{2}$	5.98	2,050	1,250
17-Z-228	22x45 $\frac{1}{2}$	7.00	2,400	1,450
17-Z-234	28x24 $\frac{1}{2}$	4.82	1,975	1,200
17-Z-235	28x33 $\frac{1}{2}$	6.45	2,625	1,600
17-Z-236	28x41 $\frac{1}{2}$	8.07	3,300	2,000
17-Z-237	28x49 $\frac{1}{2}$	9.70	3,950	2,400
17-Z-238	28x58 $\frac{1}{2}$	11.32	4,600	2,800
17-Z-239	28x66 $\frac{1}{2}$	12.98	5,275	3,200

Prices on
Application

Steam and Hot Water Radiators

**Made of Best
Gray Cast Iron**

**Thoroughly
Tested and
Guaranteed**



**Smooth Plain
Colonial
Design**

**Easy to Paint
and
Easy to Clean**

One, Two, Three and Five Column Radiators

These Colonial Pattern Radiators are of a very simple design and are becoming more and more popular. This can be easily understood when you note their beauty of design and consider with what ease they may be kept clean and sanitary. They are exceptionally well made. Each section is tested separately and tested a second time when the radiator is completely assembled. These rigid inspections and tests are for your protection. They eliminate entirely any chance of shipping defective material.

The prices quoted are F. O. B. cars our factory located in Western New York. For the convenience of our customers a large stock of radiators is carried in Chicago. When we ship from our Chicago warehouse, an advance of three cents per foot is made to cover freight charges. Include this amount when ordering radiators shipped from Chicago.

SINGLE COLUMN RADIATORS No. 17-Z-5300

For use in hallways or passageways where narrow radiator is required; can also be used as wall radiators.

Number of Sections		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Price Per Square Foot One Column Radiation		
																						Hot Water	Steam
Square Feet of Heating Surface	38 Inch Height, 3 Sq. Feet, Per Section	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	33c	32c	
	18 Inch Height, 14 Sq. Feet, Per Section	3	4	6	7	9	10	12	13	15	16	18	19	21	22	24	25	27	28	30	45c	44c	

TWO-COLUMN RADIATORS No. 17-Z-5305

For general use, when preferred instead of standard 3 column.

Number of Sections		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Price Per Square Foot Two Column Radiation	
																					Hot Water	Steam
Square Feet of Heating Surface	38 Inch Height, 4 Sq. Feet, Per Section	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	31c	30c
	26 Inch Height, 23 Sq. Feet, Per Section	5	8	10	13	16	18	21	24	26	29	32	34	37	40	42	45	48	50	53	37c	36c

THREE-COLUMN RADIATORS No. 17-Z-5310

Recognized as standard for general heating purposes.

Number of Sections		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Price Per Square Foot Three Column Radiation		
																						Hot Water	Steam
Square Feet of Heating Surface	38 Inch Height, 5 Sq. Feet, Per Section	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	30c	29c	
	26 Inch Height, 3½ Sq. Feet, Per Section	7	11	15	19	22	26	30	33	37	41	45	48	52	56	60	63	67	71	75	36c	35c	
	22 Inch Height, 3 Sq. Feet, Per Section	6	9	12	15	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	39c	39c	

FIVE-COLUMN RADIATORS No. 17-Z-5315

Window radiators. For use under windows or wherever a low radiator is desirable.

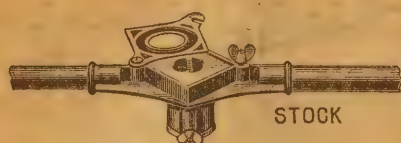
Number of Sections		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Price Per Square Foot Five Column Radiation		
																						Hot Water	Steam
Square Feet of Heating Surface	22 Inch Height, 6 Sq. Feet, Per Section	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	39c	39c	
	18 Inch Height, 5 Sq. Feet, Per Section	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	43c	43c	
	14 Inch Height, 4 Sq. Feet, Per Section	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	47c	47c	

Made with Standard Tapping as Follows:

Radiators containing 26 ft. or under	1/4 in.
Radiators containing more than 26 ft. (not exceeding 50 ft.)	1 in.
Radiators above 50 ft. but not exceeding 90 feet.	1 1/4 in.
Radiators containing above 90 feet.	1 1/2 in.

We Furnish All Necessary Tools!

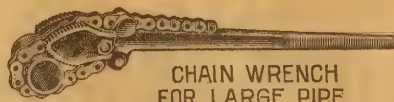
INSTALL YOUR OWN PLUMBING and HEATING PLANT



STOCK



DIES



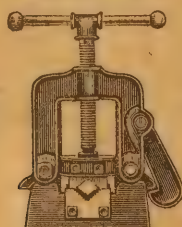
CHAIN WRENCH
FOR LARGE PIPE



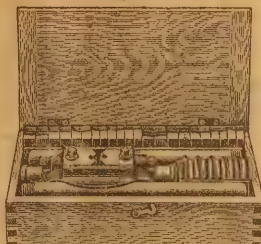
PIPE WRENCH



PIPE CUTTER



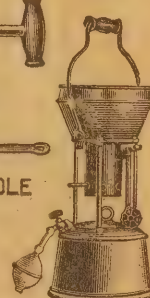
CALKING CHISEL



ARMSTRONG ADJUSTABLE
STOCK AND DIES FOR LARGE PIPE



MELTING LADLE



PLUMBER'S
BLAST FURNACE



YARNING IRON



MELTING POT

PIPE VISE

The tool sets below have been carefully assembled to give our customers a complete equipment of best tools for the installation of Heating and Plumbing Systems. After you have decided upon the set you will need to complete your work, you will find by comparison that the low prices we are asking offer a substantial saving. The tools included in these outfits are of high grade quality and with ordinary care will give you long service. If you intend to return the tools selected after you have installed your Plumbing or Heating as outlined in the offers below, we urge you to avoid breakage, for we naturally cannot accept broken tools.

4-Z-100. NEW TOOL SET

The following tools are all brand new and of finest quality. The capacity of these tools is such to install any of our Heating Plants where the No. 80 or 170 series boilers are specified. These tools are not returnable.

SET CONSISTS OF:

- 1 Pipe Vise for up to 2 1/2 inch pipe
- 1 Stock and Dies for 1/4 to 1 inch pipe, inclusive
- 1 Stock and Dies for 1 1/4, 1 1/2 and 2 inch pipe, inclusive
- 1 14 inch Pipe Wrench, takes 1/2 to 1 1/2 inch pipe
- 1 18 inch Pipe Wrench, takes 1/2 to 2 inch pipe
- 1 Pipe Cutter, cuts 1/2 inch to 1 inch pipe

Special price on the above full set of new tools. **\$32.00**

4-Z-100A. USED TOOL SET

We will furnish all of the tools mentioned in offer 4-Z-100 above, all of them being of the same quality, excepting that they have been used. All tools are in good condition and guaranteed to give best service.

Price on the above set of used tools. **\$27.50**

4-Z-100B. If you intend to use the above tools only while you are installing your Heating Plant, send us. **\$27.50**

Then, when you have completed the work, return these tools and we will hand you back. **\$22.00**

Making the cost to you for the use of these tools only **\$5.50**

4-Z-101. NEW TOOL SET

The following tools are all brand new and of finest quality. The capacity of these tools is such to install any of our Heating Plants where the Nos. 160 and 170 series boilers are specified. These tools are not returnable.

SET CONSISTS OF:

- 1 Pipe Vise, takes 1/2 inch to 3 inch pipe
- 1 Stock and Dies, takes 1/4 inch to 1 inch pipe
- 1 Stock and Dies, takes 1 1/4, 1 1/2 and 2 inch pipe
- 1 Stock and Adjustable Dies for 2 1/4 and 3 inch pipe
- 1 14 inch Pipe Wrench for 1/2 to 1 1/2 inch pipe
- 1 18 inch Pipe Wrench for 1/2 to 2 inch pipe
- 1 27 inch Chain Wrenches for 1 1/4 to 3 inch pipe
- 1 Pipe Cutter, cuts 1/2 inch to 1 inch pipe
- 1 Pipe Cutter, cuts 1 inch to 2 inch pipe
- 1 Pipe Cutter, cuts 2 inch to 3 inch pipe

Special price on the above full set of new tools. **\$70.00**

4-Z-101A. USED TOOL SET

We will furnish all of the tools mentioned in offer 4-Z-101 above, all of them being of the same quality, excepting that they have been used. All tools are in good condition and guaranteed to give best service.

Price on the above set of used tools. **\$59.50**

4-Z-101B. If you intend to use the above tools only while you are installing your Heating Plant, send us. **\$59.50**

Then, when you have completed the work, return these tools and we will hand you back. **\$47.60**

Making the cost to you for the use of these tools only **\$11.90**

4-Z-102. NEW TOOL SET

These tools are all brand new and strictly high grade. They are of sufficient capacity to install any medium size Plumbing outfit or Heating Plant. They are not returnable.

SET CONSISTS OF:

- 1 Pipe Vise for up to 2 1/2 inch pipe
- 1 Stock and Dies for 1/4 to 1 inch pipe, inclusive
- 1 Stock and Dies for 1 1/4, 1 1/2 and 2 inch pipe, inclusive
- 1 14 inch Pipe Wrench, takes 1/2 to 1 1/2 inch pipe
- 1 18 inch Pipe Wrench, takes 1/2 to 2 inch pipe
- 1 Pipe Cutter, cuts 1 inch to 2 inch pipe
- 1 Melting Pot
- 1 Plumber's blast furnace
- 1 Melting Ladle
- 1 Calking Chisel
- 1 Yarning Iron

Special price on the above full set of new tools. **\$38.50**

4-Z-102A. USED TOOL SET

We will furnish all of the tools mentioned in offer 4-Z-102 above, all of them being of the same quality, excepting that they have been used. All tools are in good condition and guaranteed to give best service.

Price on the above set of used tools. **\$33.70**

4-Z-102B. If you intend to use the above tools only while you are installing your Heating Plant, send us. **\$33.70**

Then, when you have completed the work, return these tools and we will hand you back. **\$26.95**

Making the cost to you for the use of these tools only **\$6.75**

\$30.00

SUPERIOR TANK HEATER

The accompanying illustration shows our Superior Cast Iron Tank Heater, which is without any question one of the most efficient, little water heaters on the market at the present time. The deep fire pot is a special feature of this heater and permits you to carry a long steady fire for hours at a time, without any attention whatever. By a careful adjustment of the draughts you can set this heater so that you will not have to look after it oftener than once in twelve hours, and you can keep it going winter and summer, supplying you with hot water the year around with very little attention.

DIMENSIONS AND PRICES OF HEATERS

No.	Size of Fire Pot.	Depth of Fire Pot.	Size of Smoke Pipe.	Tank Capacity, Gallons.	Hot Water Rad. Supplied.	Price
17-Z-634	10	12	6 in.	100	75 ft.	\$30.00
17-Z-636	10	14	6 in.	125	100 ft.	37.00
17-Z-637	13	11	7 in.	150	120 ft.	39.50
17-Z-638	13	15	7 in.	200	180 ft.	49.00
17-Z-639	13	19	7 in.	250	180 ft.	55.00



SPLENDID LAUNDRY STOVE

With Hollow Water Heating Fire Pot, the Ideal Laundry Stove, Very Efficient and Economical, Heats 200 Gallons of Water Per Hour

All stoves are tapped and ready for attachment to pressure boiler or tank for 1 in. pipe. Tested to a pressure of 125 lbs. Inside diameter of fire pot 1 1/4 in.; outside diameter of fire pot, 1 3/4 in.; hollow space in fire pot, 1/2 in.

The ideal laundry stove is placed before you in this money-saving opportunity. Strongly made throughout of smooth finished gray iron castings. Large substantial base. Every inch of the fire pot is utilized as heating surface for the water. The water circulating around the entire fire pot is rapidly heated. The efficiency of this stove is clearly shown in its ability to heat 200 gallons of water per hour.

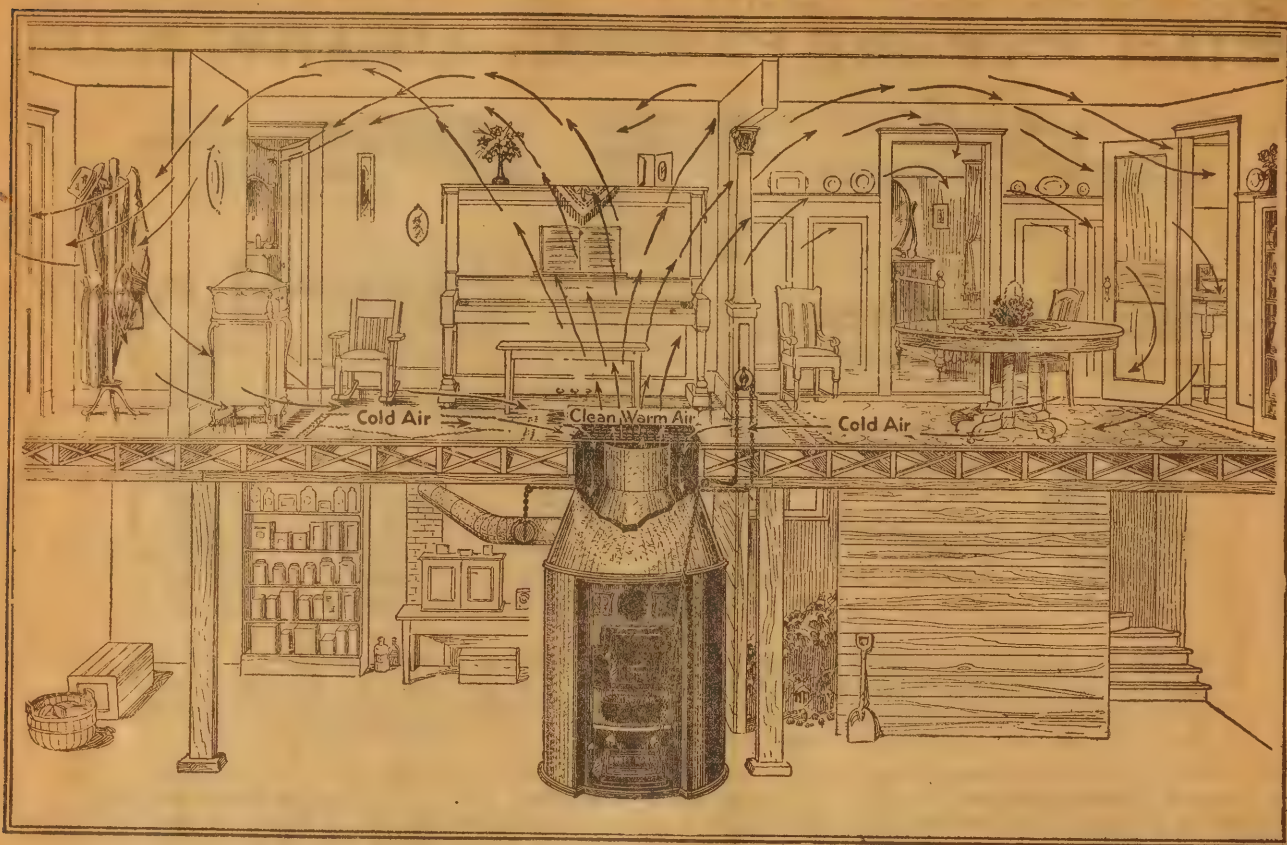
Price does not include tank.

Lot No. 17-Z-102. 4 hole stove as above, 4 8-in. lids. Size of top 25 in. wide; 22 in. deep. Weight, 155 lbs. Each **\$20.00**

Lot No. 17-Z-204. 2 hole stove as above with 2, 9-in. lids. Weight 150 lbs. With pouch fed to put in fuel when top of stove is covered. Size of top, 20 in. wide; 22 in. deep. Each **\$17.50**



Re-circulating Double Casing Pipeless Furnace



A six room house, size 25x35 ft., comfortably heated with a Harris Re-circulating Double Casing Pipeless Furnace costing \$85.00

Even steady heat constantly circulating through every room—every nook and corner flooded with clean, warm air

The picture tells the story—within a few moments after the fire is started, an abundance of warm air, cleaned and moistened from the water pan, rises quickly through one large register. This action naturally causes the cold air at the floor to fall, in a steady flow, toward the cold air intakes, where it is drawn in, cleaned, moistened, heated and passed on to the living rooms. In this way a continuous circulation is automatically started through all the rooms in your home—reaching to the farthest corners. All rooms adjoining the room in which the register is placed are evenly heated within a short time by simply opening the doors leading to them.

How the re-circulating feature cuts your fuel bill

Good circulation is absolutely necessary to heat all the rooms in your home with a Warm Air Pipeless Furnace. To supply heat through one register in one room with no provisions to keep the air circulating is not sufficient. The air rising from the furnace will retain its velocity while it is hot, but as it cools, begins to fall and will return to the cold air intake on the outer part of the floor register.

The Harris Re-circulating Pipeless System with its cold air intake returning to the furnace heats all of the rooms quickly and evenly in the coldest weather and in re-circulating the air from the rooms less heat is required and less fuel needed to

retain the steady even heat. This continuous circulation of air in all rooms mixing with the fresh air which comes into any house through doors and windows is a healthful advantage that should not be overlooked.

A particular advantage of Harris Re-circulating Furnaces is the unusually large cold air return. The outer casing being placed 6" from the inner casing allows a quick active return of the cold air from the rooms above which increases circulation and gives a constant flow of warm air through your living rooms.

Re-Circulating Double Casing Pipeless Furnace

CLEAN WARM AIR **\$85⁰⁰** **EVEN STEADY HEAT**

The "Harris" pipeless furnace has been carefully designed to embody all newest and best improvements, and as it is offered to you today it overcomes all the objectionable difficulties found in other makes. These furnaces present in themselves a complete heating system. They are ideal for the home, store, church, school and hall or for any building where the furnace can be placed in the basement near the center of the building. This furnace is designed to heat your entire building to an even temperature, distributing clean, warm air to every corner.

One Register System

The heated air rises through the center part of the register and circulates through doorways to all rooms, continuing to rise and travel while heated, then falling and returning to the furnace. In this way an almost perfect circulation is continually maintained.



Oxidized Copper Register

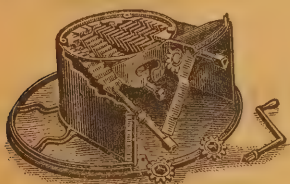
With each Harris Pipeless Furnace we furnish an Oxidized Copper Finished Register of suitable size to supply an abundance of cold air to the furnace.

The outer casings on Harris Furnaces are equipped with lugs and bolts, an exclusive feature, which will save much time and simplify the erection of our furnaces.

Efficient—Economical

These splendid pipeless furnaces have been successfully installed and are giving thorough satisfaction in every part of the country. The principle of continuous circulation of heated, clean air to every corner is not only healthful but economical. There will be no stagnant air chambers in your home. When the heated air leaves the furnace, after giving up its heat, it returns to the furnace through the outer rim of the register, where it is cleaned, moistened and re-circulated through the heat register.

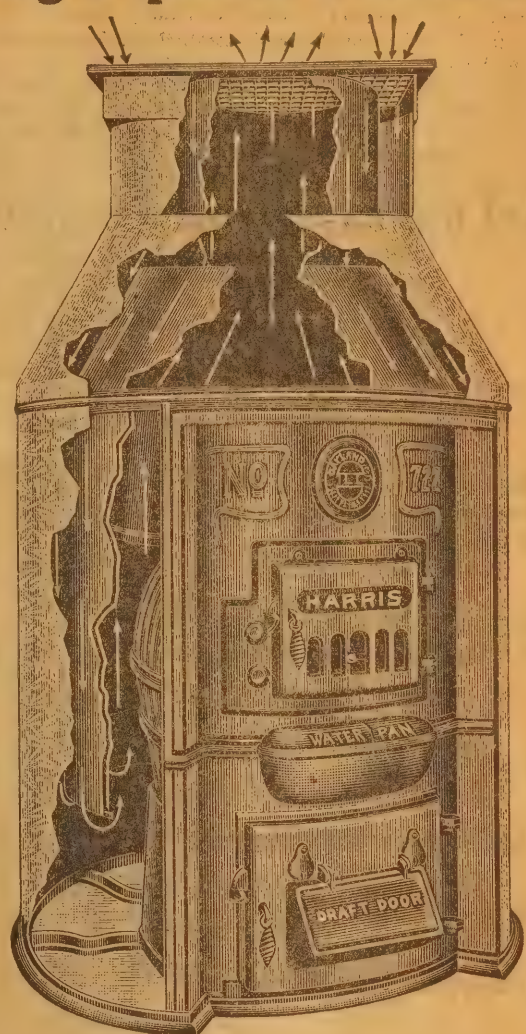
Best Triangular Grate Large Cast Radiator



Here is the improved triangular grate with which these splendid furnaces are equipped. Any of the grate bars can be removed or replaced without disturbing the rest of the grate in a moment's time. There are no bolts or cotter pins to take out—no special tools necessary. The most practical and convenient grate devised.



A special feature of "Harris" re-circulating double casing pipeless furnaces will be found in the extra large all-cast radiators. The cross-section view above shows the fire traveling. Gases and smoke must pass around the entire circumference and give up most of their heat before reaching the chimney.



Built for Long Service

"Harris" re-circulating double casing pipeless furnaces are built to give lifelong service. Made entirely of cast iron with double casing made of heavy galvanized iron. The fire pot is made in two sections with deep corrugations. The triangular grate and all parts coming in direct contact with the fire are made of finest heavy cast iron. The ash pit is large and deep to prevent damage to the grate from accumulated ashes. Extra large door to ash pit and extra large fuel door. Large water pan. Cast iron parts are smooth and nicely finished. The galvanized casing is securely fitted and perfectly joined.

PRICES AND SPECIFICATIONS F. O. B. FACTORY IN OHIO

No.	Dia. Inner Casing	Dia. Outer Casing	Height of Castings	Register Size	Dia. Hot Air Pipe	Heat Capacity Cubic Feet	Dia. Fire Pot	Size Feed Door	Dia. Smoke Pipe	Shipping Weight	Price
17-Z-718	34 in.	42 in.	48 in.	28 x 28	20 in.	12,000	18 in.	11 x 13	8 in.	800 lbs.	\$35.00
17-Z-720	38 in.	47 in.	48 in.	28 x 28	20 in.	15,000	20 in.	11 x 13	8 in.	1,000 lbs.	97.00
17-Z-722	40 in.	49 in.	52 in.	32 x 32	24 in.	18,000	22 in.	11 x 13	8 in.	1,200 lbs.	105.00
17-Z-724	47 in.	60 in.	51 1/2 in.	35 x 35	28 in.	28,000	24 in.	11 x 13	9 in.	1,450 lbs.	125.00
17-Z-726	52 in.	65 in.	52 1/2 in.	38 x 38	28 in.	40,000	26 in.	11 x 13	9 in.	1,600 lbs.	150.00

Heat All Rooms Through One Register

Harris Warm Air Re-circulating Pipeless Furnaces cost but little more than an ordinary heating stove, and are much easier handled and installed when you consider that your heating stove must be put up and taken down every six months or so. Besides the substantial saving in their low first cost, they are the most compact heating systems offered today. There are no big cumbersome pipes to take up room in your basement.

Only one big centrally located register to comfortably heat all the rooms in your home; giving you more space in your living room which otherwise would be taken up by the stove, radiators and unnecessary registers. The heat is under complete control at all times and easily regulated from the room directly above the furnace. Coal, ashes, gas, dust, dirt and smoke never reach your living rooms for the Harris Re-circulating Warm Air Pipeless Furnace places them in the basement where they belong.

Let our experienced engineers advise you which plant to install

Simply send us a rough sketch of the lay-out of rooms in your house, indicating the size of all rooms, height of ceilings, number and size of windows, and where you wish the furnace located. Our estimate will relieve you of all worry and responsibility. You can rest assured the plant we figure for you, including all the material for its installation, will heat your home satisfactorily, in all weather, with a substantial saving in fuel.

The diameter of the fire pot in a furnace does not in all cases determine its heating capacity. The supply of air to the surface, the depth and capacity of fire pot, must always be considered. Note especially the guaranteed heating capacities of the Harris Re-circulating Warm Air Pipeless Furnaces in the table below.

You can burn any kind of fuel
—hard coal, soft coal, wood
or coke.

Adjustable Throat. Fits any
basement from 6 to 8 ft. high

Radiator clean-out plug

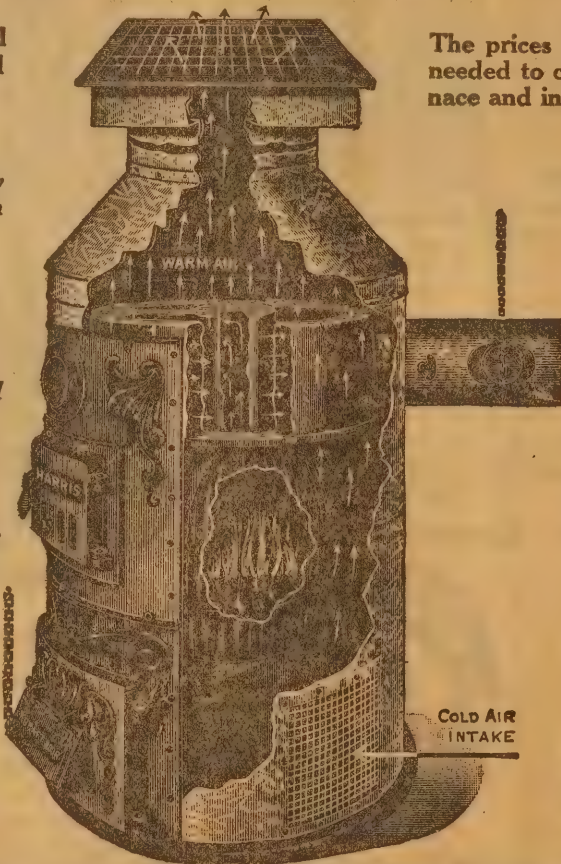
Tappings for hot water coil

Large feed door

Triangular revolving grates

Deep ashpit; no burnt grate
bars

Our re-circulating feature insures an even temperature in all your rooms. Keeps your floors warm and cozy and saves enough in fuel to pay for the furnace in a short time.



The prices below are for every single item needed to correctly install your pipeless furnace and include cold air return register.

Draft and Damper controlled
from living rooms

Cast Iron Reversible Radiator

Extra deep fire pot gives
large heating capacity

Corrugated sectional fire pot
allowing for expansion and
contraction

Large water pan cleans, purifies
and moistens air

Installed in a few hours. Our complete instructions and blue prints make installation as simple and easy as setting up an ordinary heating stove.

PRICES AND SPECIFICATIONS

F. O. B. FACTORY IN ILLINOIS

Furnace Number	17-Z-620	17-Z-622	17-Z-624	17-Z-626	17-Z-628	17-Z-630
Heating Cap., in cubic feet	13000	16000	23000	35000	47000	65000
Diam. of Casing, in inches	34	38	42	46	50	54
Height to Top of Casing, in in.	56	59	62	65	68	73
Height of Radiator, in inches	12	13	12	14	14	14
Diam. of Smoke Pipe, in inches	8	8	8	9	10	10
Size of Heating Register, in in.	18x24	20x26	22x28	28x36	28x36	36x36
Inside Diam. of Fire Pot, in in.	20	22	24	26	28	30
Shipping Weight, in pounds	790	915	1140	1365	1765	1950
Price, Complete	\$73.00	\$86.00	\$106.00	\$128.00	\$160.00	\$190.00

Harris Great "Challenge" Warm Air Furnace

Improved
Down Draft
Furnace

\$60⁰⁰

Heavy
Steel
Radiator

Designed to produce the most durable and best all-around low priced furnace on the market. Although simple in construction, it is strong and heavily built throughout and will give years of service with constant hard use. This furnace will burn any kind of fuel, soft coal, wood, coke or hard coal. Designed with large surface to radiate the maximum amount of heat from the combustion chamber. Carefully assembled and set up at our warehouse; all parts fit perfectly.

Base Plate. Made in one-piece of solid cast iron. Consists of the ash pit bottom and the outer base ring built for strength—heavy and durable.

Ash Pit. Made extra deep and roomy. Big enough to allow ashes to accumulate without danger of damaging or burning the grate.

Grates. These "Challenge" warm air furnaces are fitted with the improved triangular grate illustrated and described on another page. A special feature of this grate enables you to remove any of the grate bars without disturbing the rest. Operated with a shaker handle. Quickly and easily cleared of all ashes with a few turns.

Fire Pot. The fire pot in these furnaces is cast in two heavy sections and is made in this way to allow for contraction and expansion at the center joint. The two sections of the fire pot fitted together in such a way that gas cannot escape. Entire fire pot deeply corrugated to give additional radiating surface.

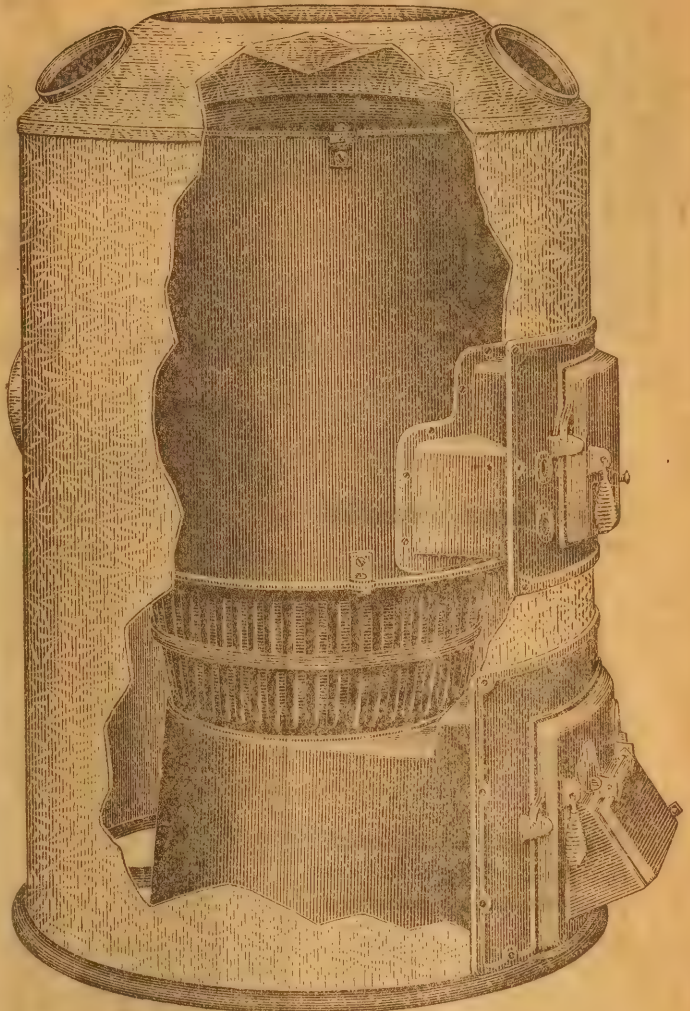
Radiator. Is made of extra heavy steel plate with smoke collar directly opposite the feed door. It is securely fitted and perfectly joined. Securely bolted to the cast top and bottom absolutely gas tight. The interior construction forces the flames to travel clear to the top of radiator before they can enter the pipe—saves a large portion of heat which ordinarily escapes through the smoke pipe.

Casing. Made of bright heavily galvanized iron. Inside casing made of black sheet iron.

Doors. The feed door is extra large which prevents the spilling of fuel and enables you to burn large chunks of wood. Large ash pit door makes it easy to clean out the ashes.

Water Pans. Water pans of furnaces are fitted with a large cast iron water back which should be kept filled with water, to purify the heated warm air before it is circulated to the rooms of your home.

Accessories. With every Harris great "Challenge" warm air furnace we supply a nicely finished damper, regulator to be attached to the floor or wall of the room directly above the furnace. Chains and pulleys are also included for the connections. We also include plenty of asbestos cement for the joints, shaker handle, poker and bolts for fastening the different parts together.



The Harris great "Challenge" warm air furnace is a high grade furnace that can be depended upon to supply you with the maximum amount of heat from the fuel you burn. This furnace is the product of a modern well equipped factory whose entire output is distributed to our customers in all parts of the country. They are built in dependable fashion from bottom to top of finest heavy galvanized steel and smoothly finished perfectly fitting cast-ings.

The Large Proportions of these Furnaces and Their Improved Construction Insures Most Efficient Service

SPECIFICATIONS AND PRICES F. O. B. FACTORY IN ILLINOIS

No.	Diameter Casing	Diameter of Fire Pot	Depth of Fire Pot	Diameter of Grate	Shipping Weight	Size of Smoke Pipe	Price
17-Z-520	34 in.	20 in.	11½ in.	16 in.	600 lbs.	8 in.	\$60.00
17-Z-522	38 in.	22 in.	12½ in.	18 in.	800 lbs.	8 in.	70.00
17-Z-524	42 in.	24 in.	13½ in.	20 in.	800 lbs.	8 in.	85.00

HARRIS SIMPLIFIED

INSTALLED QUICKLY AND ECONOMICALLY

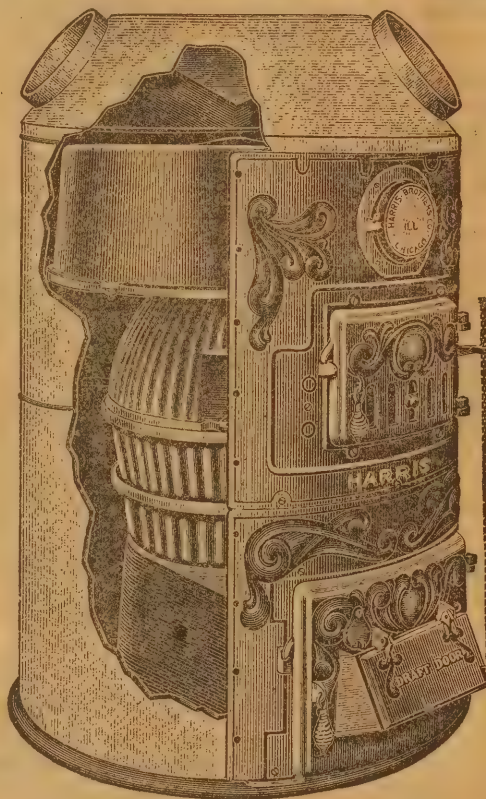
WARM AIR Pure, Fresh, Warm Air

Extra large reversible radiator.

Deep fire pot. Largely increases heating capacity.

Corrugated sectional fire pot. Allows for expansion and contraction.

Large water pan. Cleans, purifies and moistens air.



Radiator easily cleaned; large cleanout plug.

Large feed door. Perfect fit. Air tight.

Tappings for hot water coil.

Triangular revolving grates. Remove clinkers quickly.

Deep ashpit prevents burnt grate bars.

The Principle and Advantages of the Warm Air Plant

Quick heat with an abundance of clean, moistened, healthful warm air circulating through all the rooms in your home, are some of the many desirable features which have made the Warm Air Heating System so popular. Aside from these advantages, an efficient, highly satisfactory Warm Air Heating System can be installed in less time, with less work and for considerably less money than a steam or hot water plant. Warm Air Heating Systems are used everywhere for heating moderate size homes, stores, churches and schools. Where the furnace can be centrally located, a warm air plant always gives excellent results when installed according to the simple plans and easily understood instructions furnished free by our engineers.

In climates where there are quick changes in temperature only a low fire need be kept up on the mild days. Then, when there is a sudden drop in temperature, by simply opening the drafts, you can get almost instantaneous heat in all your rooms. The fresh air coming into the heating chamber through the cold air intakes and return register passes over the water pan, where it is cleaned and moistened. It is then heated in the upper part of the furnace, rising quickly through the pipes to the room above. As the air cools, it is lead back to the furnace through the return air register, remoistened, recleaned, reheated, and passed on to the rooms again. This insures even steady heat and good ventilation.

96 Let Us Figure That Heating System For You Today!

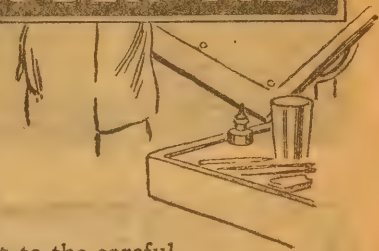
HARRIS BROTHERS CO.
35th and Iron Streets, Chicago

SYSTEMS OF HEATING



WITH THE AID OF OUR EXPERT ENGINEERING SERVICE

FURNACES For Heating & Ventilating



Harris Warm Air Heating Systems offer many advantages to the careful buyer. They are made of all new high grade material in a large up-to-date, well equipped foundry. Every piece and part is carefully constructed by skilled workmen, carefully assembled and inspected before shipment. All furnaces are entirely set up when completed, the holes are drilled to match, the doors tight, and all parts must fit perfectly. Read the following specifications; you will then clearly see why you should buy a Harris Warm Air Heating System, with its many advantages, and no other:

Harris Furnaces are furnished with cast iron reversible radiators. The castings are extra heavy. The upper and lower sections are securely bolted together with asbestos between the joints, making an absolutely air tight construction. The fire and gases must pass completely around the circumference of the radiator, thus giving off all of the heat before passing up the chimney. The extra large clean-out openings permit thorough and easy cleaning of radiators without removing smoke pipe. All the radiators are constructed so that any fuel can be burnt without clogging. The smoke collars and clean-out collars are cast and extend through the casing.

The Feed Section is extra heavy cast iron—designed to follow the cone shape of the fire. Built with an unusual amount of heating surface which guarantees maximum combustion.

The Fire Pot is in two parts, the sections being set together with deep grooves, thus allowing for expansion and contraction which reduces the possibility of cracking to the minimum. We supply with each furnace sufficient cement to make all joints gas tight. The heavy corrugation of the fire pot gives greatest heating surface possible. The heating capacity of our furnaces is greatly increased by the extra depth of the fire pot.

The Ash Pit is large and roomy, allowing for an accumulation of ashes without danger of burning the grate bars. The grate is extra heavily constructed, bars are triangular type and clinkers can be quickly removed. Any of the bars can be removed or replaced in a minute's time—no tools necessary.

Ashpit or Draft Door is of butterfly type and can be regulated by means of damper chains from the living rooms. All furnaces are tapped for hot water coil.

The Casing Construction on Harris Furnaces is such as to conserve the greatest amount of heat possible. The outer casing is bright galvanized steel—28 gauge, lined with asbestos and corrugated tin which is riveted to the upper casing and which gives proper insulation. This method of construction forces all of the heat through the supply pipes to the living rooms and thus effects a large saving in fuel.

Accessories. With each furnace we include, without extra charge, check draft, asbestos cement, water pan, poker, shaker handle, draft and regulating dial plate, chain and pulleys.

Our Experienced Engineers Serve You Free!

Simply send us a rough sketch of the layout of rooms in your house, indicating the size of all rooms. Our estimate will relieve you of all worry and responsibility. You can rest assured the plant we figure for you, including all the material for its installation, will heat your home satisfactorily, in all weather, with a substantial saving in fuel.

PRICES AND SPECIFICATIONS OF HARRIS FURNACES F. O. B. FACTORY IN OHIO

Furnace Number	17-Z-18	17-Z-20	17-Z-22	17-Z-24	17-Z-26	17-Z-29
Heating Capacity, in cu. ft.	12,000	15,000	18,000	28,000	40,000	50,000
Diam. Fire Pot, in inches	18	20	22	24	26	29
Diam. Casing, in inches	34	38	40	47	52	52
Height with casing, in inches	46	48	49	51 1/2	52 1/2	67
Height of Radiator, in inches	15	15	15	15	15	15
Size of Feed Door, in inches	11x13	11x13	11x13	11x13	11x13	11x13
Diameter Smoke Pipe, in inches	8	8	8	9	9	9
Shipping Weight, in lbs.	600	750	900	1,175	1,330	1,600
Price with Cast Iron Radiator	\$59.00	\$67.00	\$81.00	\$97.00	\$115.00	\$175.00

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Every Harris Heating System Is Guaranteed Highly Satisfactory

LATEST IMPROVEMENT IN HOT AIR PIPE

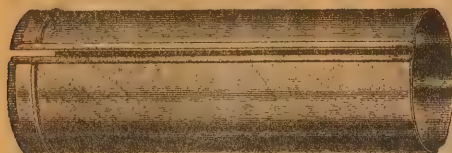


FIG-1



FIG-2



FIG-3

FIG-4

We call your special attention to the latest improvement in **HOT AIR PIPE** and **WALL STACKS**, which we have recently adopted and which we use as a special feature on all hot air heating plants sold by us. By examining the illustrations given below, you will note at once the vast superiority of our **Patented Nested Hot Air Pipe** over the old style. The old form of hot air pipe as a rule was put up in 5 to 6-foot lengths, so that the amount of pipe on an ordinary job would require several large bulky crates, inconvenient to handle and taking excessive freight rates. Besides this the pipe very often becomes crushed and damaged in transit. By referring to figures 3 and 4 you will see how fifty feet of wall pipe can be shipped in one small roll securely wrapped in burlap and absolutely protected from damage in shipment.

Figure 1 shows a length of hot air pipe ready for use. Each length is 2 feet long and is clasped together as shown in the illustration. This joint is a special patent which is guaranteed to make the pipe absolutely firm and air tight.

Figure 2 shows a length of hot air pipe connected and ready for use. We guarantee that the seam is air tight. The adjustment of our patented nested hot air pipe is simplicity itself. Each length will be smooth and free from dents because of the manner in which this hot air pipe is shipped.

In Figures 3 and 4 you will note a roll of fifty feet ready for shipment. There is no hot air pipe made that combines all the special features and which is equal to our patented nested hot air pipe from every possible standpoint.

PRICE LIST OF OUR PATENTED NESTED HOT AIR PIPE

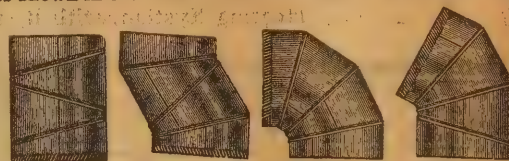
Comes in two-foot lengths only.

17-Z-157. Size 8 in. Price, per foot. .25c	17-Z-159. Size 10 in. Price, per foot. .32c
17-Z-158. Size 9 in. Price, per foot. .27c	

FOUR PIECE ADJUSTABLE HOT AIR ELBOW

The hot air elbows furnished on our furnace outfits are of the adjustable type as shown in the illustrations here given. Note how they can be adjusted to any desired angle. Can be used straight, offset, 45 degree or as 90 degree angles. We furnish two on each run of hot air pipe, so that you have no difficulty whatever making connections between furnace and stack boots. Made strong and durable.

17-Z-146. Size 8 in. Price, each. .35c
17-Z-147. Size 9 in. Price, each. .37c
17-Z-148. Size 10 in. Price, each. .48c



IMPROVED WALL PIPE

The accompanying illustrations show our Improved Nested Wall Pipe as furnished on our hot air heating plants. The advantages of this new form of wall pipe are apparent at a glance.

Figure 1 shows how this wall pipe is installed and put together, while Figure 2 shows a length of wall pipe locked and ready for use. Note how easily a wall stack of this form can be installed and adjusted to any desired length. Comes in two-foot lengths, and each piece is equipped with a special locking seam to fasten it securely to the adjoining length. This improved wall pipe is shipped nested, the same as our hot air pipe, which guarantees your always receiving wall pipe free from dents, buckles or mars. Bear in mind that the price of this improved form of wall stack is not any higher than the old style wall stack.

WALL PIPE

17-Z-166. Size 3 x 10. Per foot. .30c	17-Z-168. Size 3 x 12. Per foot. .35c
17-Z-167. Size 3 1/2 x 10. Per foot. .33c	17-Z-169. Size 3 1/2 x 12. Per foot. .37c
17-Z-170. Size 3 1/2 x 13. Price, per foot. .39c	

Prices on all forms of furnace fittings to fit any style registers or pipe quoted on application.

SINGLE BOOTS AND STACK HEADS

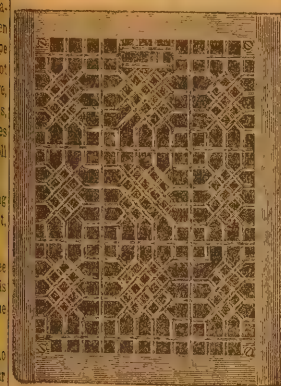
On all hot air heating plants sold by us we furnish proper boots, stack heads and other fittings required for the complete and successful installation of the outfit. The conditions naturally differ more or less on each individual job, but you may rest assured that our engineers always supply the right fitting for the

right place. We have letters on file from thousands of satisfied customers, all of them showing that the installation of their hot air plants was made exceedingly simple by our detailed blue prints and instructions. No technical knowledge is required. Each piece fits together easily with the other. No tools are necessary, only a tinner's snip. 25% of the cost of hot air plant is saved our customers by enabling them to install the plant themselves.

Special Note We are in a position to furnish you with stack heads, boots and other furnace fittings of every known make and description and we will gladly give you an estimate on any material you may need. Be sure to give us full particulars with your original inquiry. In ordering stack heads, be sure to specify the size wall pipe and the size registers to be accommodated. In ordering boots, be sure to give the size of the wall stack and the size of the collar. Save time by writing fully.

Warm Air Furnace Equipment

Floor Register



Our No. 17-Z-600

Size of opening Inches	Register	Floor Border
10.....	\$1.55	\$1.20
12.....	2.00	1.55
14.....	2.25	1.60
16.....	2.30	1.65
18.....	2.95	2.10
20.....	3.75	2.55
22.....	4.10	2.65
24.....	4.25	2.75
26.....	9.00	4.50

In ordering Registers, bear in mind that dimensions given in this table and used in describing registers apply to the size of the opening in the Register Box or Stackhead and not to the extreme outside dimension of the Registers.

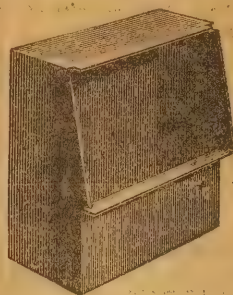


Fig. 1

Stack Head for First Floor Register

17-Z-200—Size 8x10.....	60c
17-Z-201—Size 9x12.....	70c
17-Z-202—Size 10x12.....	75c
17-Z-203—Size 12x14.....	85c

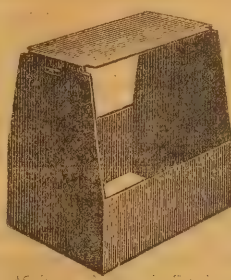


Fig. 2

Stack Head for First Floor—Two Registers

17-Z-204—Size 8x10.....	75c
17-Z-205—Size 9x12.....	85c
17-Z-206—Size 10x12.....	90c
17-Z-207—Size 12x14.....	95c

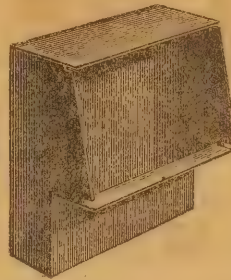


Fig. 4

Stack Head for Second Floor Register

17-Z-208—Size 8x10.....	61c
17-Z-209—Size 9x12.....	71c
17-Z-210—Size 10x12.....	76c

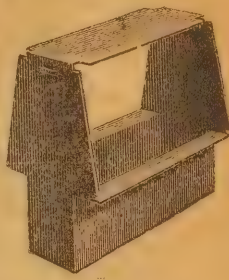


Fig. 5

Stack Head for Second Floor—Two Registers

17-Z-211—Size 8x10.....	75c
17-Z-212—Size 9x12.....	85c
17-Z-213—Size 10x12.....	95c

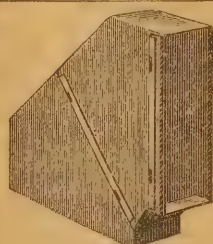


Fig. M

17-Z-250—Size 3 x 10.....	72c
17-Z-251—Size 3 1/2 x 10.....	72c
17-Z-252—Size 3 x 12.....	80c
17-Z-253—Size 3 1/2 x 12.....	80c
17-Z-254—Size 3 1/2 x 13.....	93c

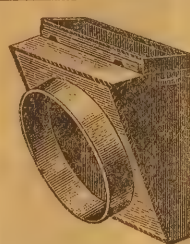
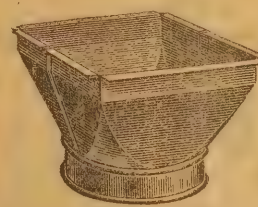


Fig. 352

17-Z-220—Size 3 x 10.....	51c
17-Z-221—Size 3 1/2 x 10.....	51c
17-Z-222—Size 3 x 12.....	60c
17-Z-223—Size 3 1/2 x 12.....	60c
17-Z-224—Size 3 1/2 x 13.....	66c



Register Box for First Floor

17-Z-235—Size 8x10.....	45c
17-Z-236—Size 10x12.....	51c
17-Z-237—Size 12x15.....	72c

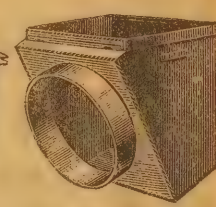


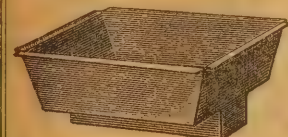
Fig. 652

17-Z-255—Size 8x10.....	\$0.86
17-Z-256—Size 9x12.....	.93
17-Z-257—Size 10x12.....	.93
17-Z-258—Size 12x14.....	1.08

Base Board Registers

We furnish the Imperial Horizontal Baseboard Registers on all plants sold by us. They have a patent wheel movement and fan shut-off, insuring largest possible capacity. They set in the baseboard. If you want a wall register to fit a stackhead already installed specify size of opening in the stackhead and whether register is to be placed above, or in the baseboard.

Size Inches	Finish	Price Each
17-Z-500—8x10 Blk. Japanned....		\$2.40
17-Z-503—9x12 Blk. Japanned....		4.25
17-Z-505—10x12 Blk. Japanned....		4.80
17-Z-509—12x14 Blk. Japanned....		6.75



17-Z-230—Size 3 x 10.....	51c
17-Z-231—Size 3 1/2 x 10.....	51c
17-Z-232—Size 3 x 12.....	60c
17-Z-233—Size 3 1/2 x 12.....	60c
17-Z-234—Size 3 1/2 x 13.....	66c

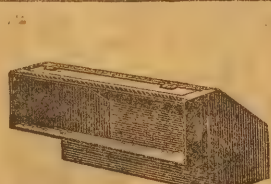


Fig. 318. Stack Elbow 28

17-Z-240—Size 3 x 10.....	51c
17-Z-241—Size 3 1/2 x 10.....	51c
17-Z-242—Size 3 x 12.....	60c
17-Z-243—Size 3 1/2 x 12.....	60c
17-Z-244—Size 3 1/2 x 13.....	66c

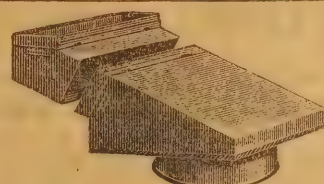


Fig. 353. Comb. Boot and Offset

17-Z-225—Size 3 x 10.....	\$0.81
17-Z-226—Size 3 1/2 x 10.....	.81
17-Z-227—Size 3 x 12.....	.90
17-Z-228—Size 3 1/2 x 12.....	.90
17-Z-229—Size 3 1/2 x 13.....	1.05

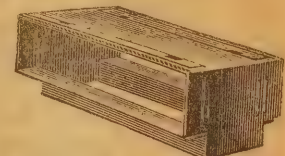


Fig. 316. Stack Tee 28

17-Z-245—Size 3 x 10.....	51c
17-Z-246—Size 3 1/2 x 10.....	51c
17-Z-247—Size 3 x 12.....	60c
17-Z-248—Size 3 1/2 x 12.....	60c
17-Z-249—Size 3 1/2 x 13.....	66c

Excellent Domestic Water Heater

17-Z-984. An efficient water heater especially made to be used in any standard furnace. Made of finest smooth gray cast iron. Convenient clean-out plug enables you to remove sediment. Two openings for 1 in. pipe. Easily installed by removing parts covering these openings. Efficiently used in connection with any 40 gallon range boiler. Price each. **\$2.25**



Smith's Maltese Heaters

These Maltese Heaters are the most efficient hot water heating appliances ever invented for use in connection with a hot air furnace. Can be connected in series of one or more above the other, as shown in this illustration, with connecting nipples between, if desired.

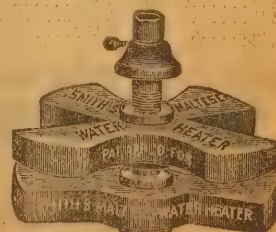


No. 17-Z-2100

Prices and Dimensions

Inches	Tapped	Height	Feet of Radiation	Heat, Gal. Tank	Price, Full Size	Price, 1/2 Size
9	3/4	2	30	30.....	\$ 3.60	
12	1	2 1/2	50	50.....	4.80	\$ 4.20
15	2	3	75	75.....	9.60	8.60
18	2 1/2	3	100	100.....	14.40	13.25
21	3	3	150	175.....	18.00	16.00
24	3	3 1/2	200	225.....	23.00	21.00
27	3	3 1/2	250	300.....	27.00	25.75
30	3 1/2	4	300	350.....	33.00	30.00

No. 12 is also tapped for 1 1/4 inch pipe. Full size Maltese are tapped top and bottom and can be bushed for any pipe. When two or more are coupled together, the 1/2 size is used as bottom section and is tapped on top and middle arm. Can tap either right or left arm, if so desired. Two collars are sent with each heater. Add pipe surface to radiation when ordering.



RADIATOR VALVES



5-Z-178. Jenkins' Disc Angle Radiator Valve, with Union, nickel plated all over.
Inch Each Inch Each
1/4.....\$1.30 1 1/2.....\$2.75
1.....1.60 2.....4.45
1 1/4.....2.15

5-Z-174. Jenkins' Disc Corner Radiator Valves with Union, nickel plated all over. Made of heavy steam metal. Fully guaranteed. These valves are made for both right and left hand corners.



5-Z-175. For right hand corner.

Inch	Each	Inch	Each
1/4	\$1.50	1 1/2	\$3.20
1	1.90	2	5.15
1 1/4	2.55		

5-Z-176. For left hand corner.

Inch	Each	Inch	Each
1/4	\$1.50	1 1/2	\$3.20
1	1.90	2	5.15
1 1/4	2.55		

LOCK SHIELD RADIATOR VALVES



5-Z-177. Jenkins' Disc with Union, nickel plated all over.
Inch Each
1/4.....\$1.70
1.....2.10
1 1/4.....2.85
1 1/2.....3.65

5-Z-179. Quick Opening Hot Water Radiator Valve with Union, nickel plated all over.

Size	Each	Size	Each
1/4	\$1.00	1 1/2	\$2.55
1	1.30	2	3.95
1 1/4	1.80		



5-Z-180. Hot Water Union Elbows, nickel plated all over.

Size	Each	Size	Each
1/4	\$0.68	1 1/2	\$1.35
1	0.85	2	2.35
1 1/4	1.08		

5-Z-181. Nickel Plated Compression Radiator Air Valves. Size 1/4 inch.

Price, each.....\$0.15

5-Z-183. Nickel Plated Compression Radiator Air Valves with wood wheels. Size 1/4 inch. Each.....\$0.18

5-Z-184. Nickel Plated Automatic Radiator Air Valves for steam.

Size of connection pipe thread, 1/2 inch. Each.....\$0.39

PIPE HANGERS

Can be cut to all desired lengths by disconnecting two lower screws. The most practical pipe hanger on the market. Easy to adjust and can be put up in less than half the time of the ordinary hanger.



21-Z-185. Adjustable length, 2 to 10 inches.

Pipe Inches	Each	Pipe Inches	Each
1	\$0.09	2 1/2	\$0.15
1 1/4	.10	3	.20
1 1/2	.12	3 1/2	.21
2	.14	4	.24

PERFORATED STRAP IRON



21-Z-186. For large pipe or long drops we recommend our 1/2 perforated strap iron.

Price per foot 5 ft. and 10 ft. lengths..\$0.06 1/2

HOT WATER THERMOMETERS



Used in connection with hot water heating plants, registering up to 220 degrees. Guaranteed accurate. Each Thermometer is carefully packed in a separate wooden box.
5-Z-187. Straight Thermometers as shown in illustration. Price, each.....\$1.05
5-Z-188. Angle Thermometers for use on risers or circulating pipes. Price, each.....\$1.30

ALTITUDE GAUGES



5-Z-189. Altitude Gauges are used for indicating the height of water in a hot water heating system. The red hand is movable. When you determine the height of water to just fill the system correctly, set the red hand at that point and then the indicating hand should be right on top of it. Each.....\$3.00

GRAPHITE PIPE JOINT CEMENT

5-Z-9535. For use in steam, hot water or other pipe connections. Makes joints air tight and does not harden, making it easy to put in pipe connections without breaking the fitting. 45c 2-lb. can.....



GALVANIZED STEEL EXPANSION TANKS



These are used in connection with hot water heating plants. Water gauge not included at prices quoted.

	Capacity	Size	Sq. feet of	Price
	Gallons	Inches	radiation	Each
5-Z-190	8	10x20	300 to 400	\$7.30
5-Z-191	10	12x20	400 to 500	7.80
5-Z-193	15	12x30	500 to 600	8.70
5-Z-195	20	14x30	600 to 700	12.00
5-Z-197	26	16x30	700 to 900	13.65
5-Z-198	32	16x36	1000 to 1300	14.65
5-Z-199	42	16x48	1300 & Up	16.00
5-Z-201	Water gauge set.....			1.20

NICKEL PLATED FLOOR AND CEILING FLANGES



5-Z-202. Floor Flange.

Size	Price	Size	Price
Inches	Each	Inches	Each
1/4	\$0.08	1 1/4	\$0.13
1/2	.10	1 1/2	.15
1	.12	2	.22

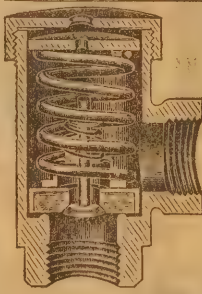
5-Z-203. Ceiling Flange.



Size	Price	Size	Price
Ins.	Each	Ins.	Each
1/2	\$0.08	1 1/4	\$0.13
3/4	.10	1 1/2	.15
1	.12	2	.22

HEAT GOVERNOR

For Hot Water Heating Systems



This device keeps a constant pressure of about 10 pounds on the water of the system and permits you to heat the water to a very high temperature. You will get much higher heating efficiency on the plant, save fuel and will get better circulation.

Can be attached in a few minutes to any Hot Water Heating system. Made of solid bronze throughout—will not rust or get out of order, will last a lifetime.

No. 5-Z-4570. Heat Governor \$6.50 (weight, 5 lbs.) Price.....

"HARRIS" DAMPER—REGULATOR

This regulator is without doubt the most practical on the market, its self-friction being reduced to a minimum point where it operates at a very low pressure. The working parts are made from the best quality of phosphor bronze, and the cast iron housing prevents ashes or dust from entering into the working chamber. Its operation is very simple and needs no looking after. They are all tapped for 1/4-inch pipe. The Hot Water Damper Regulator can be adjusted to close dampers at any temperature between 20 to 240 degrees.

Let. No. 5-Z-27. Steam Regulator.....\$13.50
Lot No. 5-Z-28. Hot Water Regulator....13.75



RADIATOR BRONZE POWDER

5-Z-7590. Gold Bronze Powder. A good quality for general use.
1/2 pound can.....\$0.30
1 pound can.....1.50
2 pound can.....2.90

RADIATOR BRONZE POWDER ALUMINUM POWDER

5-Z-7595.
1/2 pound can.....\$1.00
1 pound can.....1.95
2 pound can.....3.80

WOOL FELT PIPE COVERING

21-Z-205. Especially recommended for hot water heating plants. This covering is made of soft corrugated wool felt with interlining of two layers of asbestos felt, and finished with a canvas jacket.

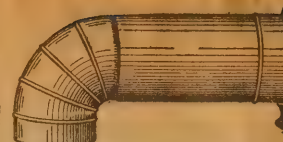
For Pipe, Size	Price, per 3 ft. Length	For Pipe, Size	Price, per 3 ft. Length
1/4	\$0.30	2 1/2	\$0.48
1/2	.33	3	.54
1	.37	3 1/2	.60
1 1/2	.39	4	.78
2	.45		

MOULDED ASBESTOS PIPE COVERING

21-Z-204. This form of covering is offered as a durable and effective non-conducting covering. It is absolutely fire-proof and is made in sections in the various sizes, 3 feet long, which are finished with canvas jackets, and provided with sufficient metal bands to securely fasten it to the pipe. Thickness of covering, 1 inch.

For Pipe, Size	Price, per 3 ft. Length	For Pipe, Size	Price, per 3 ft. Length
1/4	\$0.33	2	\$0.51
1/2	.37	2 1/2	.57
1	.41	3	.65
1 1/2	.45	3 1/2	.72
2	.50	4	.87

SMOKE PIPE



17-Z-7530. Our regular galvanized smoke pipe furnished with all our Heating Plants, made of 26-gauge heavy galvanized sheet iron, comes in 2 foot lengths. The stack is shipped knocked down the flat sheets all flanged and seamed. Can be assembled in a few minutes. Prices as follows:

Inch.....6 7 8 9 10
Per foot.....28c 32c 34c 36c 38c 5

17-Z-7535. Smoke Dampers fit above pipe. Prices as follow

Inch.....6 7 8 9 10 11
Each.....45c 47c 63c 78c 95c \$1.

17-Z-7540. 26-Gauge Galvanized Elbows to fit above smoke pipe. Prices as follows:

Inch.....6 7 8 9 10 11
Each.....45c 46c 54c 63c 78c \$1.

RED LEAD FOR PIPE JOINT

This is the regular plumbers red lead for making joints water, steam tight.

5-Z-7850. Comes in one-pound cans. Price, per can.....\$0.10

RADIATOR BRONZE MIXING LIQUID AND BRUSH

Must be mixed with bronze.

5-Z-7585

Each
1 pint cans.....\$0.25
1 quart can......40
1/2 gallon can......70
1 gallon can.....1.20
Bronzing brush, each......3

ASBESTOS CEMENT



No. 21-Z-20. A dry cement for covering heating boilers, iron pipes, etc., to prevent loss of heat. Composed of asbestos fibre and other materials. Should always be used on heating boilers, as it increases efficiency of boiler at least 50 per cent.

As asbestos Moulded covering for fittings are only made as ordered, we would recommend the use of Asbestos cement in the place. Figure 1 1/2 lbs. of cement to a fitting up to 2 inches. Large size fittings in proportion. Mix with water and apply same as mortar. It is better to apply this cement when boiler is hot. Put in two coats. Comes in 100-lb. bags.

Price, per bag.....\$1.8

Smaller quantities, per lb....3 1/2

ASBESTOS AIR CELL PIPE COVERING

No. 21-Z-206. Suitable for steam or hot water heating plant. Is first-class insulator. It is one inch thick, made up of layers of Asbestos with small air spaces between. These air spaces very material increase the efficiency of the covering. It is light, thus reducing freight charges. Mechanical stronger, so less liable to breakage and we believe it is in every way equal to the Asbestos Moulded Pipe Covering. Sold in sections of feet. Easily applied. Metal bands for each section. Price per foot.






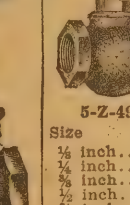
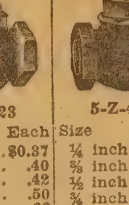
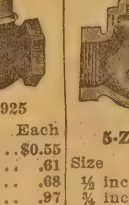
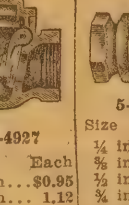
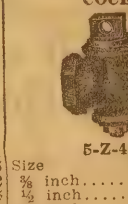
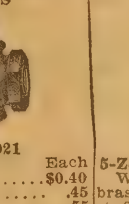


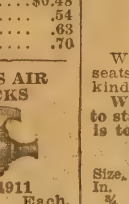
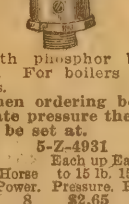
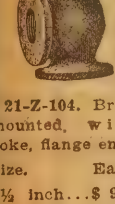
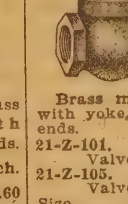
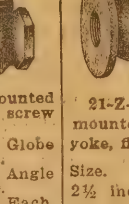
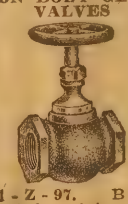
For Pipe, Size	Price, per 3 ft. Length	For Pipe, Size	Price, per 3 ft. Length
1/4	\$0.25	2	\$0.4
1/2	.28	2 1/2	.45
1	.30	3	.5
1 1/2	.42	3 1/2	.55
2	.48	4	.6

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago

Brass Valves and Cocks—Iron Body Valves

Full standard weights, suitable for 100-pound steam pressure. For use either steam or water purposes. Made of the best grade metals of proper mixture to give excellent satisfaction. The valves are carefully machined and have full openings. We guarantee them fully in every respect and we will replace any valve without charge that does not prove entirely satisfactory.

Prices of All Material on This Page Are Subject to Market Changes

TANDARD GLOBE VALVES  5-Z-4901 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.40</td></tr><tr><td>3/4 inch...</td><td>.42</td></tr><tr><td>1 inch...</td><td>.45</td></tr><tr><td>1 1/4 inch...</td><td>.55</td></tr><tr><td>1 1/2 inch...</td><td>.72</td></tr><tr><td>1 3/4 inch...</td><td>1.05</td></tr><tr><td>2 inch...</td><td>1.43</td></tr><tr><td>2 1/2 inch...</td><td>2.00</td></tr><tr><td>3 inch...</td><td>3.03</td></tr></table>	Size	Each	1/2 inch...	\$0.40	3/4 inch...	.42	1 inch...	.45	1 1/4 inch...	.55	1 1/2 inch...	.72	1 3/4 inch...	1.05	2 inch...	1.43	2 1/2 inch...	2.00	3 inch...	3.03	STANDARD BRASS ANGLE VALVES  5-Z-4903 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.40</td></tr><tr><td>3/4 inch...</td><td>.42</td></tr><tr><td>1 inch...</td><td>.45</td></tr><tr><td>1 1/4 inch...</td><td>.55</td></tr><tr><td>1 1/2 inch...</td><td>.72</td></tr><tr><td>1 3/4 inch...</td><td>1.05</td></tr><tr><td>2 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inch...</td><td>\$0.57</td></tr><tr><td>3/4 inch...</td><td>.65</td></tr><tr><td>1 inch...</td><td>.83</td></tr><tr><td>1 1/4 inch...</td><td>1.15</td></tr><tr><td>1 1/2 inch...</td><td>1.45</td></tr><tr><td>1 3/4 inch...</td><td>2.05</td></tr><tr><td>2 inch...</td><td>2.85</td></tr><tr><td>2 1/2 inch...</td><td>4.50</td></tr></table>	Size	Each	1/2 inch...	\$0.57	3/4 inch...	.65	1 inch...	.83	1 1/4 inch...	1.15	1 1/2 inch...	1.45	1 3/4 inch...	2.05	2 inch...	2.85	2 1/2 inch...	4.50	STANDARD GATE VALVES  5-Z-4909 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.82</td></tr><tr><td>3/4 inch...</td><td>.85</td></tr><tr><td>1 inch...</td><td>.95</td></tr><tr><td>1 1/4 inch...</td><td>1.17</td></tr><tr><td>1 1/2 inch...</td><td>1.60</td></tr><tr><td>1 3/4 inch...</td><td>2.20</td></tr><tr><td>2 inch...</td><td>2.85</td></tr><tr><td>2 1/2 inch...</td><td>4.15</td></tr></table>	Size	Each	1/2 inch...	\$0.82	3/4 inch...	.85	1 inch...	.95	1 1/4 inch...	1.17	1 1/2 inch...	1.60	1 3/4 inch...	2.20	2 inch...	2.85	2 1/2 inch...	4.15	STANDARD HORIZONTAL CHECK VALVES  5-Z-4923 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.37</td></tr><tr><td>3/4 inch...</td><td>.40</td></tr><tr><td>1 inch...</td><td>.42</td></tr><tr><td>1 1/4 inch...</td><td>.50</td></tr><tr><td>1 1/2 inch...</td><td>.66</td></tr><tr><td>1 3/4 inch...</td><td>.90</td></tr><tr><td>2 inch...</td><td>1.28</td></tr><tr><td>2 1/2 inch...</td><td>1.80</td></tr><tr><td>3 inch...</td><td>2.70</td></tr></table>	Size	Each	1/2 inch...	\$0.37	3/4 inch...	.40	1 inch...	.42	1 1/4 inch...	.50	1 1/2 inch...	.66	1 3/4 inch...	.90	2 inch...	1.28	2 1/2 inch...	1.80	3 inch...	2.70	JENKINS' DISC BRASS CHECK VALVES  5-Z-4925 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.55</td></tr><tr><td>3/4 inch...</td><td>.61</td></tr><tr><td>1 inch...</td><td>.68</td></tr><tr><td>1 1/4 inch...</td><td>.97</td></tr><tr><td>1 1/2 inch...</td><td>1.35</td></tr><tr><td>1 3/4 inch...</td><td>1.86</td></tr><tr><td>2 inch...</td><td>2.57</td></tr><tr><td>2 1/2 inch...</td><td>3.85</td></tr></table>	Size	Each	1/2 inch...	\$0.55	3/4 inch...	.61	1 inch...	.68	1 1/4 inch...	.97	1 1/2 inch...	1.35	1 3/4 inch...	1.86	2 inch...	2.57	2 1/2 inch...	3.85	STANDARD SWING CHECK VALVES  5-Z-4927 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.95</td></tr><tr><td>3/4 inch...</td><td>1.12</td></tr><tr><td>1 inch...</td><td>1.32</td></tr><tr><td>1 1/4 inch...</td><td>1.80</td></tr><tr><td>1 1/2 inch...</td><td>2.37</td></tr><tr><td>1 3/4 inch...</td><td>3.35</td></tr></table>	Size	Each	1/2 inch...	\$0.95	3/4 inch...	1.12	1 inch...	1.32	1 1/4 inch...	1.80	1 1/2 inch...	2.37	1 3/4 inch...	3.35	STANDARD VERTICAL CHECK VALVES  5-Z-4929 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.54</td></tr><tr><td>3/4 inch...</td><td>.58</td></tr><tr><td>1 inch...</td><td>.75</td></tr><tr><td>1 1/4 inch...</td><td>.95</td></tr><tr><td>1 1/2 inch...</td><td>1.35</td></tr><tr><td>1 3/4 inch...</td><td>1.89</td></tr><tr><td>2 inch...</td><td>2.63</td></tr><tr><td>2 1/2 inch...</td><td>3.97</td></tr></table>	Size	Each	1/2 inch...	\$0.54	3/4 inch...	.58	1 inch...	.75	1 1/4 inch...	.95	1 1/2 inch...	1.35	1 3/4 inch...	1.89	2 inch...	2.63	2 1/2 inch...	3.97
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STANDARD BRASS STEAM COCKS  4-Z-4919 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.45</td></tr><tr><td>3/4 inch...</td><td>.52</td></tr><tr><td>1 inch...</td><td>.65</td></tr><tr><td>1 1/4 inch...</td><td>.90</td></tr><tr><td>1 1/2 inch...</td><td>1.25</td></tr><tr><td>1 3/4 inch...</td><td>1.95</td></tr><tr><td>2 inch...</td><td>2.55</td></tr><tr><td>2 1/2 inch...</td><td>3.85</td></tr></table>	Size	Each	1/2 inch...	\$0.45	3/4 inch...	.52	1 inch...	.65	1 1/4 inch...	.90	1 1/2 inch...	1.25	1 3/4 inch...	1.95	2 inch...	2.55	2 1/2 inch...	3.85	STANDARD BRASS GAS SERVICE COCKS  5-Z-4921 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.40</td></tr><tr><td>3/4 inch...</td><td>.45</td></tr><tr><td>1 inch...</td><td>.55</td></tr><tr><td>1 1/4 inch...</td><td>.85</td></tr><tr><td>1 1/2 inch...</td><td>1.35</td></tr><tr><td>1 3/4 inch...</td><td>1.85</td></tr><tr><td>2 inch...</td><td>3.25</td></tr></table>	Size	Each	1/2 inch...	\$0.40	3/4 inch...	.45	1 inch...	.55	1 1/4 inch...	.85	1 1/2 inch...	1.35	1 3/4 inch...	1.85	2 inch...	3.25	COMPRESSION GAUGE COCKS  5-Z-4915 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.87</td></tr><tr><td>3/4 inch...</td><td>.90</td></tr><tr><td>1 inch...</td><td>1.08</td></tr></table>	Size	Each	1/2 inch...	\$0.87	3/4 inch...	.90	1 inch...	1.08	THREE-WAY BRASS STEAM COCKS  5-Z-4917 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$1.82</td></tr><tr><td>3/4 inch...</td><td>2.52</td></tr><tr><td>1 inch...</td><td>3.15</td></tr><tr><td>1 1/4 inch...</td><td>4.80</td></tr><tr><td>1 1/2 inch...</td><td>6.00</td></tr><tr><td>1 3/4 inch...</td><td>8.80</td></tr></table>	Size	Each	1/2 inch...	\$1.82	3/4 inch...	2.52	1 inch...	3.15	1 1/4 inch...	4.80	1 1/2 inch...	6.00	1 3/4 inch...	8.80	BIBB AIR COCK  5-Z-4913 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.48</td></tr><tr><td>3/4 inch...</td><td>.54</td></tr><tr><td>1 inch...</td><td>.63</td></tr><tr><td>1 1/2 inch...</td><td>.70</td></tr></table>	Size	Each	1/2 inch...	\$0.48	3/4 inch...	.54	1 inch...	.63	1 1/2 inch...	.70	BRASS AIR COCKS  5-Z-4911 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$0.30</td></tr><tr><td>3/4 inch...</td><td>.32</td></tr><tr><td>1 inch...</td><td>.36</td></tr><tr><td>1 1/2 inch...</td><td>.42</td></tr></table>	Size	Each	1/2 inch...	\$0.30	3/4 inch...	.32	1 inch...	.36	1 1/2 inch...	.42	POP SAFETY VALVES  5-Z-4931 <table><tr><th>Size</th><th>Horse Power</th><th>Each from 15 lb. Pressure</th><th>Each from 15-100 lb. Pressure</th></tr><tr><td>1/2 inch...</td><td>8</td><td>\$2.65</td><td>\$4.60</td></tr><tr><td>3/4 inch...</td><td>12</td><td>3.10</td><td>5.75</td></tr><tr><td>1 inch...</td><td>18</td><td>3.50</td><td>6.90</td></tr><tr><td>1 1/2 inch...</td><td>20</td><td>3.75</td><td>8.65</td></tr><tr><td>2 inch...</td><td>30</td><td>5.95</td><td>13.25</td></tr></table>	Size	Horse Power	Each from 15 lb. Pressure	Each from 15-100 lb. Pressure	1/2 inch...	8	\$2.65	\$4.60	3/4 inch...	12	3.10	5.75	1 inch...	18	3.50	6.90	1 1/2 inch...	20	3.75	8.65	2 inch...	30	5.95	13.25	STANDARD BRASS BALL AND LEVER SAFETY VALVES  5-Z-4933 <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$2.90</td></tr><tr><td>3/4 inch...</td><td>3.50</td></tr><tr><td>1 inch...</td><td>4.20</td></tr><tr><td>1 1/4 inch...</td><td>6.25</td></tr><tr><td>1 1/2 inch...</td><td>8.00</td></tr><tr><td>2 inch...</td><td>11.25</td></tr></table>	Size	Each	1/2 inch...	\$2.90	3/4 inch...	3.50	1 inch...	4.20	1 1/4 inch...	6.25	1 1/2 inch...	8.00	2 inch...	11.25																																																			
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IRON BODY ANGLE VALVES  21-Z-104 Brass mounted, with yoke, flange ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$ 9.60</td></tr><tr><td>3/4 inch...</td><td>13.50</td></tr><tr><td>1 inch...</td><td>16.65</td></tr><tr><td>1 1/4 inch...</td><td>20.25</td></tr><tr><td>1 1/2 inch...</td><td>27.90</td></tr><tr><td>2 inch...</td><td>37.80</td></tr></table>	Size	Each	1/2 inch...	\$ 9.60	3/4 inch...	13.50	1 inch...	16.65	1 1/4 inch...	20.25	1 1/2 inch...	27.90	2 inch...	37.80	IRON BODY GLOBE VALVES AND ANGLES  21-Z-101 Brass mounted, with yoke, screw ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>1/2 inch...</td><td>\$ 8.10</td></tr><tr><td>3/4 inch...</td><td>11.25</td></tr><tr><td>1 inch...</td><td>13.70</td></tr><tr><td>1 1/4 inch...</td><td>17.10</td></tr><tr><td>1 1/2 inch...</td><td>24.30</td></tr><tr><td>2 inch...</td><td>33.75</td></tr></table>	Size	Each	1/2 inch...	\$ 8.10	3/4 inch...	11.25	1 inch...	13.70	1 1/4 inch...	17.10	1 1/2 inch...	24.30	2 inch...	33.75	IRON BODY GLOBE VALVES  21-Z-103 Brass mounted, with yoke, flange ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>2 1/2 inch...</td><td>\$ 9.60</td></tr><tr><td>3 inch...</td><td>13.50</td></tr><tr><td>3 1/2 inch...</td><td>16.65</td></tr><tr><td>4 inch...</td><td>20.25</td></tr><tr><td>5 inch...</td><td>27.90</td></tr><tr><td>6 inch...</td><td>37.80</td></tr></table>	Size	Each	2 1/2 inch...	\$ 9.60	3 inch...	13.50	3 1/2 inch...	16.65	4 inch...	20.25	5 inch...	27.90	6 inch...	37.80	IRON BODY GLOBE VALVES  21-Z-97 Brass mounted, plain screw ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>2 inch...</td><td>\$ 5.70</td></tr><tr><td>2 1/2 inch...</td><td>7.75</td></tr><tr><td>3 inch...</td><td>10.35</td></tr></table>	Size	Each	2 inch...	\$ 5.70	2 1/2 inch...	7.75	3 inch...	10.35	IRON BODY ANGLE VALVES  21-Z-99 Brass mounted, plain screw ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>2 inch...</td><td>\$ 5.70</td></tr><tr><td>2 1/2 inch...</td><td>7.75</td></tr><tr><td>3 inch...</td><td>10.35</td></tr></table>	Size	Each	2 inch...	\$ 5.70	2 1/2 inch...	7.75	3 inch...	10.35	STRAIGHT WAY GATE VALVES  21-Z-109 Iron body, brass trimmings, stationary stem, screw ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>2 1/2 inch...</td><td>\$ 9.55</td></tr><tr><td>3 inch...</td><td>11.60</td></tr><tr><td>3 1/2 inch...</td><td>14.10</td></tr><tr><td>4 inch...</td><td>15.90</td></tr><tr><td>5 inch...</td><td>23.80</td></tr><tr><td>6 inch...</td><td>27.45</td></tr></table>	Size	Each	2 1/2 inch...	\$ 9.55	3 inch...	11.60	3 1/2 inch...	14.10	4 inch...	15.90	5 inch...	23.80	6 inch...	27.45	STRAIGHT WAY GATE VALVES  21-Z-110 Iron body, brass trimmings, stationary stem, flange ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>2 1/2 inch...</td><td>\$11.00</td></tr><tr><td>3 inch...</td><td>13.50</td></tr><tr><td>3 1/2 inch...</td><td>16.00</td></tr><tr><td>4 inch...</td><td>18.90</td></tr><tr><td>5 inch...</td><td>25.75</td></tr><tr><td>6 inch...</td><td>29.95</td></tr></table>	Size	Each	2 1/2 inch...	\$11.00	3 inch...	13.50	3 1/2 inch...	16.00	4 inch...	18.90	5 inch...	25.75	6 inch...	29.95	IRON BODY HORIZONTAL CHECK VALVES  21-Z-150 Brass mounted screw ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>2 1/2 inch...</td><td>\$6.00</td></tr><tr><td>3 inch...</td><td>\$8.20</td></tr><tr><td>3 1/2 inch...</td><td>\$11.30</td></tr><tr><td>4 inch...</td><td>\$13.00</td></tr><tr><td>5 inch...</td><td>\$20.30</td></tr><tr><td>6 inch...</td><td>\$27.50</td></tr></table>	Size	Each	2 1/2 inch...	\$6.00	3 inch...	\$8.20	3 1/2 inch...	\$11.30	4 inch...	\$13.00	5 inch...	\$20.30	6 inch...	\$27.50	IRON BODY HORIZONTAL CHECK VALVES  21-Z-108 Brass mounted, flange ends. <table><tr><th>Size</th><th>Each</th></tr><tr><td>3 inch...</td><td>\$10.50</td></tr><tr><td>4 inch...</td><td>\$16.50</td></tr><tr><td>5 inch...</td><td>\$24.00</td></tr><tr><td>6 inch...</td><td>\$32.25</td></tr></table>	Size	Each	3 inch...	\$10.50	4 inch...	\$16.50	5 inch...	\$24.00	6 inch...	\$32.25																																																						
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Second Hand Valves and Fittings

We are constantly securing Valves and Fittings of every kind, in connection with our purchases of complete plants and factories.

LET US KNOW YOUR NEEDS—WRITE FOR PRICES NOW

A Harris Air Pressure Water Supply

Pure Fresh Water in Abundance



You May Now Enjoy All of the Conveniences of a City Home

A "Harris" water supply outfit gives you every convenience of clear, pure running water when and where you want it. You will only have to turn the faucet. Free yourself of the drudgery of having to carry water around in pails. You can now have a modern bathroom in your home. Many steps may be saved in the kitchen and laundry. You'll wonder how you got along without running water after your system is installed.

A Reliable Protection in Case of Fire

You cannot afford to take the risk of being without a water supply system of some kind for use in case of fire. An elevated tank in the attic may have some advantages over carrying water from the well in buckets, but its use is very limited. An air pressure system offers the most reliable protection. With water pipes throughout the house and faucets placed at various convenient and accessible points, it is almost impossible for a fire to get much of a start. Simply connect the hose to any of the faucets, turn on the valve and you can have the fire extinguished in a few moments.



Read over carefully description of the outfits on the following pages. The advantages offered, the simplicity of operation and the low prices at which they are offered make it not a matter of deciding whether or not you want an outfit, but rather, a matter of deciding which of the outfits you want. Start today to get your outfit. Order Now!

Outfit is Easily and Quickly Installed Always Ready When and Where You Want it



So Handy About The Farm for Watering Purposes

You will quickly realize the advantages of an air pressure water supply system. It is so much handier than carrying the water around in buckets. Just the thing for watering horses, cattle, hogs and chickens. A system of this kind is almost a necessity for use in the garden. A lawn sprinkler may be attached, keeping the grass always fresh and green.

Quickly and Easily Installed and Operated

Any ordinary mechanic can install one of these systems for you, or you can do the work yourself in one afternoon. Complete plans and instructions are furnished with every outfit making it impossible for you to go wrong. There is no possible chance for these outfits to get out of order. They are very simple, containing the fewest working parts of any outfit on the market. Every outfit is guaranteed to be absolutely satisfactory in every way or your money will be refunded. If you are in doubt as to which size outfit will be needed to fulfill your requirements, we will be glad to give you any information that might help you out.



Picture your home equipped with all the conveniences that are offered by one of these outfits. Think of the time, money and unnecessary labor that will be saved. Read over the following pages carefully. The extremely low prices will convince you that these outfits are a necessity that you cannot afford to be without. Look them over now!

NEW UP-TO-DATE WATER WORKS OUTFIT

This simple and reliable outfit will be found to be a most efficient water works system. After reading the full instructions, furnished with each outfit, you'll be able to set it up in a few hours' time, regardless of whether you have had any previous experience or not.

No country or suburban home is complete without one of these outfits. It provides all of the conveniences of city life—running water, both hot and cold, for kitchen, bath-room and the entire premises. It will also furnish protection in case of fire. It's so convenient to have plenty of hot and cold running water whenever and wherever you want it that you would not want to part with the outfit after it is once installed.

We are confident that you will be more than satisfied. That's why we offer to refund your money if you are not. Each outfit is guaranteed to work successfully and to be absolutely perfect in every detail.



\$80⁰⁰



**\$80⁰⁰ for
Complete Outfit**

Consisting of:

Brand New Black Steel Pneumatic Tank, size 24 in. x 6 ft., double-riveted, capacity 145 gallons, working capacity 100 gallons, made of $\frac{1}{8}$ shell and $\frac{1}{8}$ head.

Our Horizontal Double-acting Force Pump, equipped with pneumatic attachment for pumping water and air at same time, $\frac{1}{4}$ in. suction, 1 in. discharge, capacity 300 gallons per hour, tested under 150 lbs. cold water pressure. Most durable and dependable pump made.

Also Water Gauge, Pressure Gauge, Check Valve, Globe Valve, Elbows, Tees, Couplings and Nipples for complete installation.

5-Z-6001. OUTFIT COMPLETE. Price, only\$80.00

Outfit includes black steel double riveted air tight pneumatic tank, made of $\frac{1}{8}$ shell and $\frac{1}{8}$ head. Fully tested to 200 pounds air pressure and guaranteed for working pressure of 75 pounds. Price of outfit depends upon size of tank furnished as shown below.

Pump furnished with this outfit is our 4-Z-2455 Double Acting Horizontal Force-Pump, equipped with pneumatic attachment and used for pumping water and air at the same time. Pump tapped for $\frac{1}{4}$ inch suction and 1 inch discharge. We also furnish complete with water gauge glass, pressure gauge, check valve, globe valve and all other fittings, such as galvanized nipples, unions, couplings, etc., required in installation.

Special Note.—For the convenience of our customers, we list below several standard size outfits. Bear in mind, however, we can furnish these outfits with tanks of any size desired, either larger or smaller. Consult list given below and if you want special size tank, write us for quotation.

Tanks can be furnished to lay horizontally. Unless otherwise specified will be shipped with tappings for vertical setting.

Special quotations furnished on power driven outfits, deep well outfits or any other special feature wanted.

5-Z-6002. Complete Outfit. Size of tank, 24 inches by 10 feet. Capacity of tank, 245 gallons. Working capacity 100 gallons. Price.....

\$105.00

5-Z-6005. Complete Outfit. Size of tank, 30 inches by 8 feet. Capacity of tank, 220 gallons. Working capacity, 160 gallons. Price.....

\$92.50

5-Z-6007. Complete Outfit. Size of tank, 30 inches by 8 feet. Capacity of tank, 295 gallons. Working capacity, 200 gallons. Price.....

\$105.00

5-Z-6009. Complete Outfit. Size of tank, 36 inches by 8 feet. Capacity of tank, 420 gallons. Working capacity, 300 gallons. Price.....

\$125.00

AIR PRESSURE TANKS

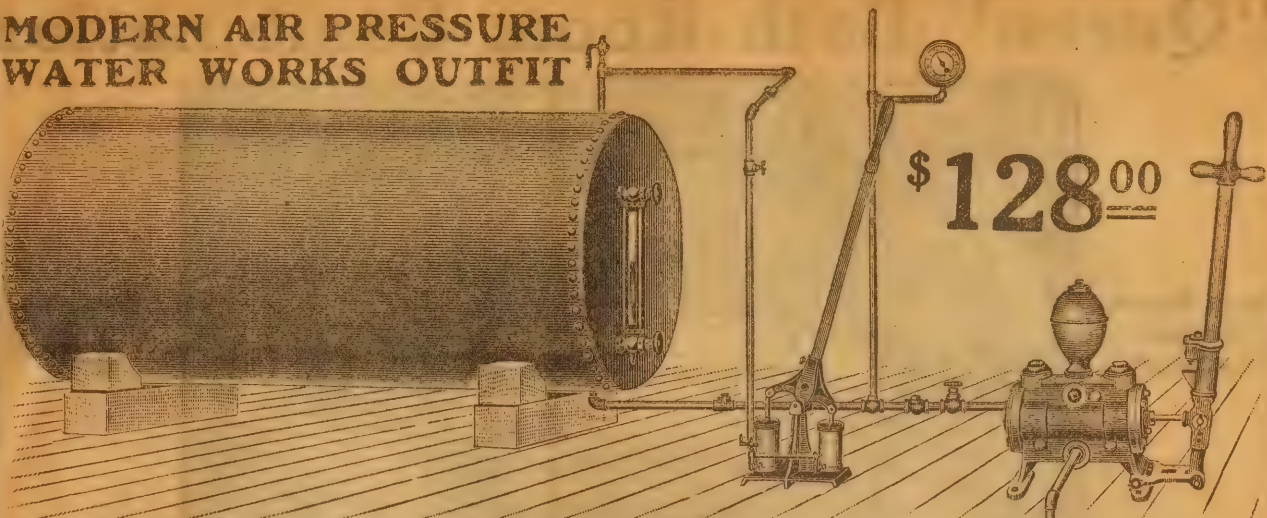
Prices on tanks subject to market changes. Note our very low prices on our air pressure tanks. We can furnish any of the various size tanks in the following list, at prices quoted. These prices are F. O. B. cars our factory near Chicago. We can quote you freight prepaid prices or F. O. B. Chicago prices on request. These tanks are all fully tested and guaranteed perfectly air tight before shipment. Guaranteed for a working pressure of 75 pounds.

In ordering, state whether tank is wanted tapped to stand vertically or to lay horizontally.

Order Number	Diam. Inches	Length Feet	Weight Pounds	Capacity Gallons	Thickness, Inch.		Prices		Order Number	Diam. Inches	Length Feet	Weight Pounds	Capacity Gallons	Thickness, Inch.		Price	
					Shell	Head	Black	Galv.						Shell	Head	Black	Galv.
5-Z-6101	24	6	370	145	3/16	$\frac{1}{4}$	\$ 43.70		5-Z-6123	42	8	1,422	575	$\frac{3}{4}$	$\frac{1}{2}$	\$118.75	
5-Z-6105	24	10	525	245	3/16	$\frac{1}{4}$	66.00		5-Z-6125	42	10	1,685	720	$\frac{3}{4}$	$\frac{1}{2}$	137.70	
5-Z-6107	30	6	558	220	3/16	5/16	55.70		5-Z-6127	42	12	1,953	865	$\frac{3}{4}$	$\frac{1}{2}$	155.50	WRITE
5-Z-6109	30	8	677	295	3/16	5/16	68.50		5-Z-6129	42	14	2,216	1,000	$\frac{3}{4}$	$\frac{1}{2}$	176.50	
5-Z-6111	30	10	795	365	3/16	5/16	79.55		5-Z-6135	48	14	2,665	1,300	$\frac{3}{4}$	$\frac{1}{2}$	200.00	FOR
5-Z-6115	36	8	760	420	3/16	5/16	66.40		5-Z-6137	48	16	2,963	1,500	$\frac{3}{4}$	$\frac{1}{2}$	223.50	PRICES
5-Z-6117	36	8	928	480	3/16	5/16	82.60		5-Z-6141	48	20	3,565	1,880	5/16	$\frac{1}{2}$	270.50	
5-Z-6119	36	10	1,090	525	3/16	5/16	95.60		5-Z-6143	48	24	4,167	2,260	5/16	$\frac{1}{2}$	312.50	
5-Z-6121	36	12	1,253	680	3/16	5/16	106.90										

Manheads \$15.00 extra. Water Gauges, etc., are not included in the above prices. All tanks tested to 200 lbs. air pressure, and guaranteed.

MODERN AIR PRESSURE WATER WORKS OUTFIT



One of the special features of this outfit is the absolutely positive air supply arrangement. You'll find this feature to be a decided advantage in that it will give you a plentiful supply of air at all times, with only a few strokes of the pump.

A two-cylinder air pump is furnished with this outfit. A very important feature, is the large 5-inch Cylinder Water Pump, which is furnished, supplying a large volume of water and filling the tank in a very short time. This reduces the amount of pumping required. A full set of instructions and blue print diagrams showing just how to install, furnished with every outfit.

We furnish these outfits, exactly as shown, complete, with large 5-inch Cylinder, Double Acting, Water Force Pump, Two-Cylinder, High Pressure Air Pump, with long, detachable lever, as illustrated, all necessary valves, check valves, fittings, pressure gauge, water gauge, complete with gauge cocks, guard rods, etc., the necessary piping to connect the pump with the outfit as shown; also the necessary pipe between the water pump and the tank. We do not furnish the suction pipe leading from the pump to the well, as this varies in every case. This will come extra, according to our net catalogue price on 1 1/4-inch Galvanized Iron Pipe. We, however, furnish the piping between the pump and tank, as shown in this illustration, and necessary fittings, which makes the outfit complete, as illustrated.

Below you will find three complete outfits. If in doubt, write us for complete estimate. Tell us the size outfit and send sketch of quantity of pipe and fittings needed from well to pump and from pump to supply in your home. We will make a delivered price on all your needs.

5-Z-6208. Complete Outfit. Size of tank, 24 inches by 10 feet. Capacity of tank, 245 gallons. Working capacity, 160 gallons.....	\$128.00	5-Z-6207. Complete Outfit. Size of tank, 36 inches by 8 feet. Capacity of tank, 420 gallons. Working capacity, 360 gallons.....	\$140.00
5-Z-6209. Complete Outfit. Size of tank, 36 inches by 10 feet. Capacity of tank, 525 gallons. Working capacity, 360 gallons.....	\$157.00		

Harris Electric Water Supply System

A Pressure Water Supply System—Automatic and Pneumatic with all Latest Improvements and Satisfactory Features

This splendid outfit will give you plenty of water all the year round without the least bit of attention. It is designed to work automatically with positive safety—simple and durable—noiseless. Operated at exceptionally low cost.

Complete in design, requiring little floor space. Quickly and easily assembled by any one. Includes Harris pump, driving motor, automatic pressure switch, pressure tank, pressure gauge, complete water gauge drain cock, foot valve, safety pop valve, two stop cocks, air vent valve, bushing and nipple.

The Harris Electric Water Supply System can be used where the suction lift does not exceed 25 feet. Specially designed leak-pack primer with which the pump is equipped enables it to prime itself and obtain a maximum of vacuum.

The Pump The Harris Pump is self-contained, as the driving motor is secured directly to the pump stand. The main frame, stand and housing of the pump are of grey cast iron. The water cylinder is of highest grade bronze, cast in one piece, which prevents all corrosion and insures long life to the pump. The piston rod, piston parts, stuffing box and other parts subject to corrosion or wear are also made of bronze. The valves, which are of the single-seated type with overhead guide, are of the best grade valve stock rubber and are quickly and easily accessible. Ample air chambers are provided in both suction and discharge sides. Splash oiling system. Once the oil chamber is filled, no further attention need be given this detail for a considerable time. The idler pulley is packed with grease. The pumping capacity is 175 gallons per hour; motor regularly furnished 1/8 H. P. air A. C. and A. D.; provides pressure up to 40 pounds in the tank.

Automatic Pressure Switch The pressure control switch is mounted directly on the discharge chamber of the pump, which insures perfect safety and control at all times as well as direct action. This switch is the latest improvement in the field, is absolutely positive and reliable, and when once set for any desired pressure will maintain this pressure indefinitely.

5-Z-25. Complete Pumping Outfit, consisting of 52-gallon galvanized storage tank, pump with 3/4-inch suction, 1/2-inch discharge pipe, 1/8 H. P. motor, and necessary equipment to install (pipe not included).....

\$167.50

5-Z-26. Harris Automatic Electric Water Supply System. Same as 5-Z-25, but furnished with 100-gallon iron tank. Price.....

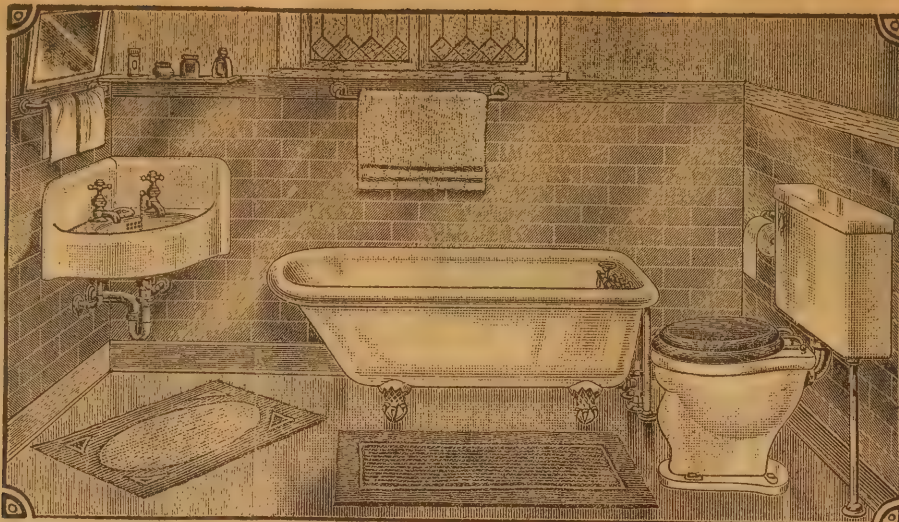
\$193.00

Be sure to state whether alternating current or direct current is wanted.



"Queen" Bath Room Combination

Deep Apron
Corner
Lavatory



\$76⁰⁰

Carefully assembled to meet the demand of those who wish a bath room outfit with a space saving deep apron corner lavatory of neat design. All pieces are properly designed and proportioned to produce a neat trim appearance.

The bathtub is cast in one piece, and coated with white porcelain enamel; measures 5 ft. long and 30 in. wide, white enamel on the inside and over 3 in. roll rim, best grade fittings are included with the tub, consisting of nickel plated Fuller double bath cock, indexed for hot and cold water, nickel plated supply pipes, connected waste and overflow.

The closet outfit includes a white vitreous earthenware wash down bowl, and is furnished with highly finished mahogany seat and cover, white porcelain low down water tank with best interior fittings.

The lavatory with this combination is cast in one piece of best grey iron, heavily and smoothly coated with white porcelain enamel. The lavatory size is 20 in. x 20 in. measuring from the corner along each wall; bowl size 11 in. x 15 in.; back 8 in. high.

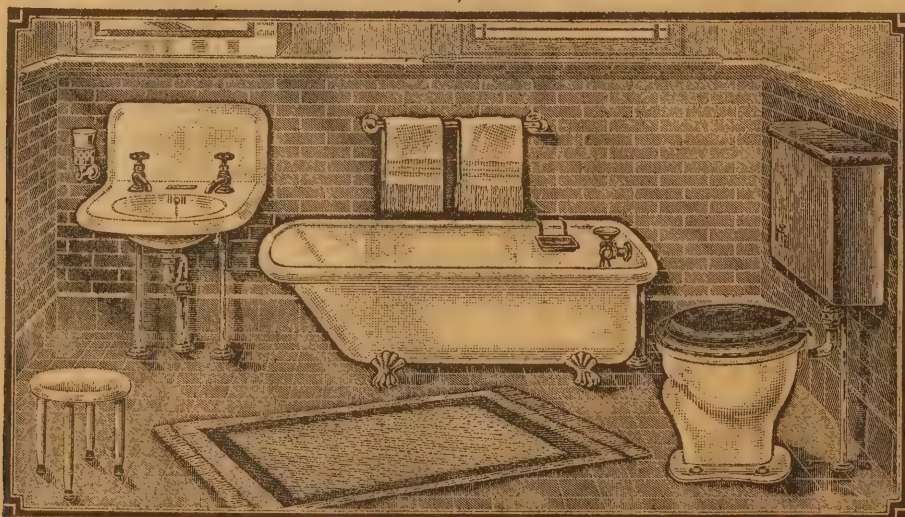
The deep shapely apron gives a neat and massive form, furnished complete with 2 nickel plated low down compression basin cocks with china tops, marked "hot and cold," nickel plated chain and rubber stopper, 3/8 in. supply pipes, and nickel plated "P" trap to wall. Concealed wall hangers are furnished for hanging it.

5-Z-628. "Queen" bath room combination, complete as described for lead pipe connection..... **\$76.00**

5-Z-629. "Queen" bath room combination, complete as described for iron pipe connection..... **\$77.50**

"Majestic" Bath Room Combination

\$71⁰⁰



Attractive
Design

Here is a bathroom combination that offers very unusual value at a remarkably low price. Every piece and part furnished is strictly "A" grade and guaranteed in every way to give you the satisfaction you have a right to expect. We have assembled this outfit from articles secured by us in numerous big purchases and are sharing the money savings we realize with our customers.

The bath tub is cast in one-piece and coated with white porcelain enamel; measures 5 ft. long and 30 in. wide, made with 3 in. roll rim. Finest quality fittings are included with the tub consisting of heavy nickel-plated Fuller double bath cock indexed for hot and cold water, nickel-plated connected waste and overflow and supply pipes.

The closet outfit is an improved low down pattern equipped with a white vitreous earthenware bowl, wash down pattern. Closet tank is made of golden oak perfectly fitted and highly finished; lined with heavy copper. The closet seat and cover are attached with nickel-plated off-set hinges and are finished to match the tank. Fitted with nickel-plated elbow and supply pipe.

The lavatory furnished with this combination is made of best cast iron smoothly and heavily coated with white porcelain enamel; measures 18 in. x 21 in. with 8 in. back

and "D" pattern bowl size 10 in. x 14 in.; neat roll rim furnished complete with two nickel-plated compression basin cocks with china tops marked "hot" and "cold"; nickel-plated chain and rubber stopper; nickel-plated 3/8 in. supply pipes and nickel-plated "S" trap to floor. Attaches to wall with concealed hangers.

5-Z-37. Majestic Bathroom combination complete as described for lead pipe connections..... **\$71.00**

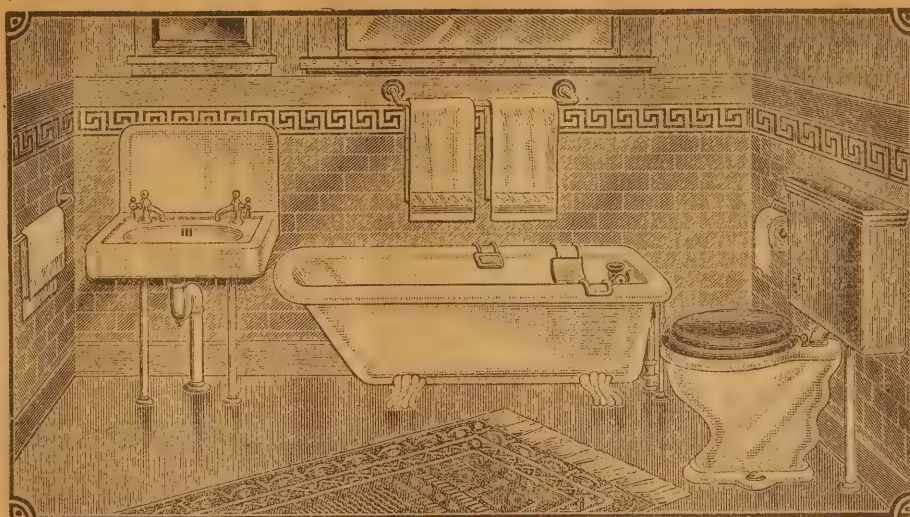
5-Z-39. Majestic Bathroom combination complete as described for iron pipe connections..... **\$72.50**

Shipped complete from our Chicago warehouse.

106 Our Selection of Bath Room Accessories Is Complete. See Them!

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

"Empress" Bath Room Combination



**Wholesome
Value**

\$82⁵⁰

-This elegant outfit is designed for those who wish an extra fine bathroom equipment, neat of design and splendid in quality. The three pieces and all fittings to the last detail have been carefully chosen and embodied in a combination suited to the finest home.

The bath tub measures 5 ft. long and 30 in. wide and is made with a 3 in. roll rim. Coated on the inside and over the rim with white porcelain enamel. It is furnished complete with nickel-plated compression double bath cock with handles indexed "hot and cold"; nickel-plated connected waste and overflow, supply pipes, chain and rubber stopper.

The closet outfit is an improved low down design furnished with Syphon Jet white vitreous earthenware bowl. The oak seat and cover are attached with nickel-plated off-set hinges. The oak closet tank matches the seat and cover in finish. It is fitted with best trimmings and is perfect in action. Lined throughout with heavy copper. Nickel-plated off-set and supply pipe.

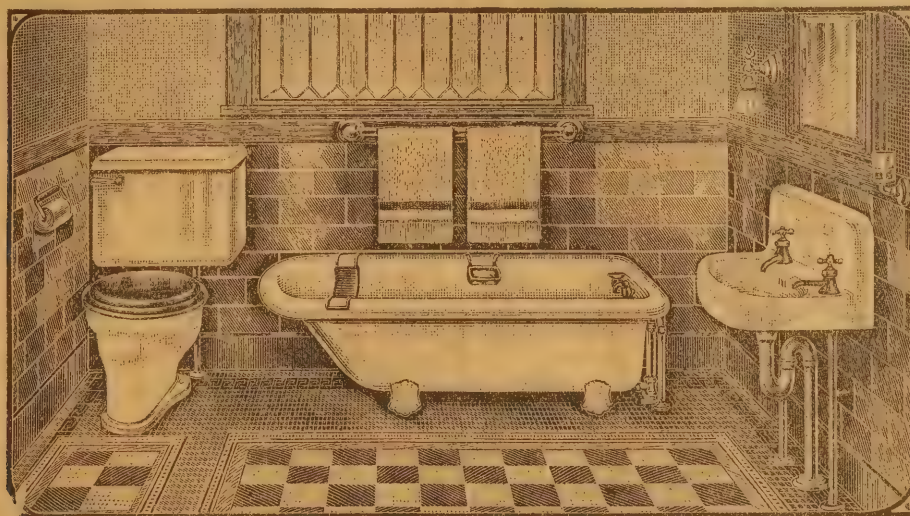
The one-piece lavatory is heavily coated with white porcelain enamel and is made in deep apron style. Measures 13 in. x 24 in. with 10 in. back and "D" pattern bowl size 11 in. x 14 in. Fitted with nickel-plated faucets with handles indexed "hot and cold." Nickel-plated supply pipes and "S" trap to floor.

5-Z-560. Empress Bathroom combination complete as described for lead pipe connections **\$82.50**

5-Z-580. Empress Bathroom combination complete as described for iron pipe connections **\$84.00**

Shipped complete from Chicago warehouse.

"Countess" Bath Room Combination



**Very Neat
Appearing**

\$78⁰⁰

This desirable bathroom outfit embodies all features of modern plumbing. It is offered to meet the demand for an outfit of very select quality and perfect design. Nothing has been spared in selecting all pieces and best fittings that can possibly be furnished at our big economical prices.

The bath tub furnished is 5 ft. long and 30 in. wide; massive and well proportioned. Heavily coated on the inside and over the 3-in. roll rim with white porcelain enamel. Fitted with nickel-plated compression double bath cock indexed for hot and cold water; nickel-plated connected waste and overflow and supply pipes.

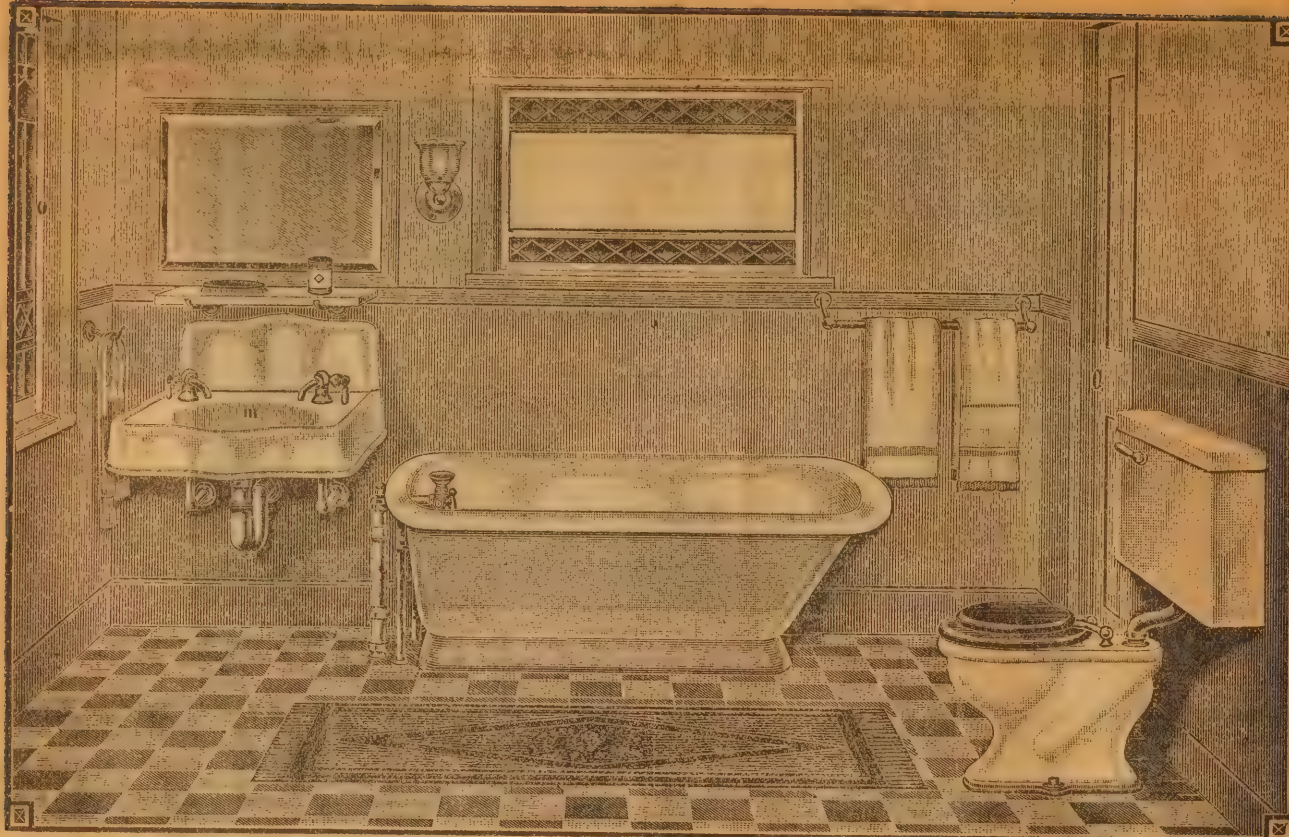
The closet outfit includes an improved wash down type vitreous earthenware bowl and plain neat white vitreous earthenware tank; fitted with Douglas pattern perfect acting valve. All tank fittings are made of heavy brass and copper; operated with china lever in front. The closet seat and cover are highly finished in mahogany and attached to the bowl with nickel-plated off-set hinges.

The deep apron lavatory is coated with white porcelain enamel and measures 18 in. x 21 in. with 8-in. back and "D" pattern bowl size 10½ in. x 14½ in. Fitted with two nickel-plated compression faucets with china tops indexed for hot and cold water. Nickel plated 1½ in. "S" trap to floor and ¾ in. nickel plated supply pipes.

5-Z-65. Countess Bathroom combination complete as described for lead pipe connections **\$78.00**

5-Z-67. Countess Bathroom combination complete as described for iron pipe connections **\$79.50**

Shipped from our Chicago warehouse.



"Royal" Bath Room Combination \$100

ASSEMBLED with utmost care to embody every requirement necessary to furnish a bathroom outfit suitable for the finest home. All improvements and up-to-date features are found in this combination; still, we are about to place it before our customers at a comparatively low price. You will not only be impressed with the design, finish and quality of all pieces furnished, but surprised with the quality of all fittings.

Special Features

Most prominent of all the desirable features of this combination is the massively designed bath tub with pedestal base. The tub sets flush all around on the floor and eliminates the old-fashioned leg base so difficult to clean under. The shapely serpentine deep apron lavatory, the plainly designed highly polished white vitreous earthenware tank and improved syphon jet closet are distinctive features that will meet with your highest approval.

The pedestal base bath tub is coated on the inside and over the 3 in. roll rim with white porcelain enamel. Measures 5 ft. long and 80 in. wide; the exterior of the tub is painted and may be painted to match the walls of your bathroom. It is fitted with nickel-plated double bath cock with handles indexed for hot and cold water. In place of the ordinary chain and stopper, we furnish the desirable Roman or lifting waste; nickel-plated supply pipes to floor. The closet outfit consists of a white vitreous earthenware tank fitted with heavy brass and copper interior trimmings. Perfect action; operated by a slight push of the white china handle.

Elegant Appearance

Syphon jet white vitreous earthenware bowl, highly polished. Finely finished seat and cover in mahogany; attaches to the bowl with nickel-plated offset hinges producing a striking contrast to the white tank and bowl. The lavatory measures 18 in. x 24 in. It is unusually attractive in design with shapely serpentine deep apron front and 10 in. back. Fitted with Fuller faucets with china handles indexed for hot and cold water. Nickel-plated supply pipes and "P" trap to wall. Nickel-plated wall flanges. 5-Z-74. Royal bathroom combination complete as described for iron pipe connections. **\$100.00**

Picture this beautiful outfit in your own bathroom. Think of the elegant appearance it will present and the convenience it will add to the most important, most used room in your home. Here is an outfit whose general appearance is one of massiveness; yet good taste is displayed everywhere. The high grade, heavily nickel-plated faucets, supply pipes and all fittings which are furnished emphasize the splendid quality of this combination to the last detail.

We are prepared to ship these outfits direct to you from our warehouse. All outfits are carefully assembled, inspected and tested before shipment. Guaranteed to give complete and lasting satisfaction or your money back.

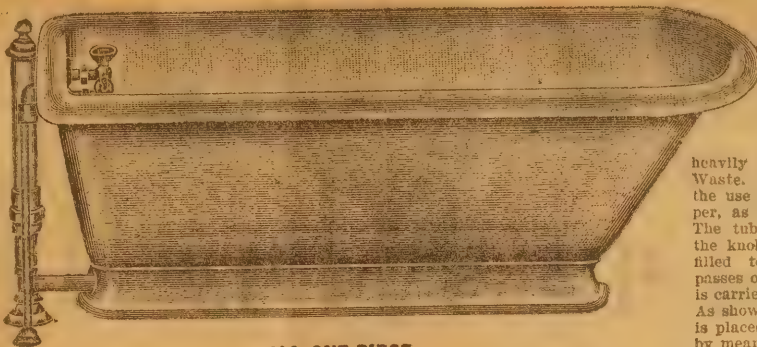
PEDESTAL BATH TUB

**HIGHEST GRADE
WHITE ENAMELED
INSIDE AND OUTSIDE**

Our Premier Bath

Tub We feature this tub as the finest and most elegant Tub that can be manufactured and sold at the prices indicated. It meets the demands of the exacting buyer. Our prices place it within reach of all who appreciate quality and superior finish. Besides the graceful Pedestal Base, the distinguishing feature of this Tub is the Special Hand Finished Exterior, giving bath room an appearance of elegance and cleanliness impossible to obtain with ordinary bath tub.

Material The finish on this Tub shows the extreme care exercised in its manufacture. Only the very highest grade of cast iron is used in casting. Enameling process is so carefully done that it requires two weeks to prepare a tub for shipment. An extra double heavy coating of the very finest white porcelain enamel is baked on the inside of these tubs to give it a Superior High Finish. Absolutely free from flaws or defects of any nature.



ALL ONE PIECE

PEDESTAL BATH TUB. White Porcelain; enameled inside and outside; complete as described.

Order No.	Size	Weight	Price
5-Z-250.	4 1/2 ft.	350 lbs.	\$69.00
5-Z-252.	5 ft.	400 lbs.	70.00
5-Z-254.	5 1/2 ft.	450 lbs.	73.00

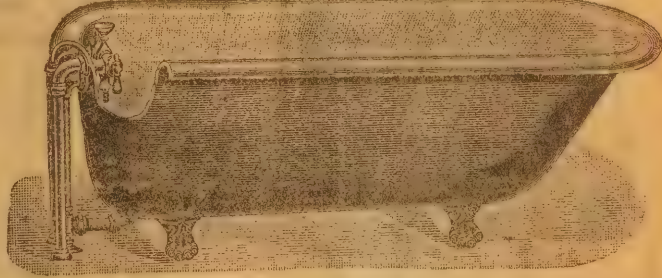
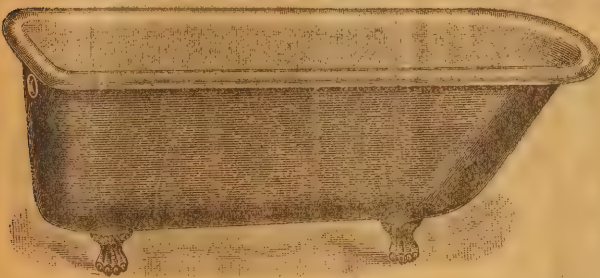
PEDESTAL BATH TUB, complete as described, with painted base and exterior.

Order No.	Size	Weight	Price
5-Z-251.	4 1/2 ft.	350 lbs.	\$46.00
5-Z-253.	5 ft.	400 lbs.	47.00
5-Z-255.	5 1/2 ft.	450 lbs.	50.00

Fittings Tub is furnished complete with all necessary fittings above floor. These consist of two half-inch nickel plated offset supply pipes; extra heavy No. 4 1/2 Fuller pattern combination bath cock indexed for hot and cold water, with Jewel Cup and special shampoo connection; and heavily nickel-plated Roman or Standing Waste. This Roman Waste dispenses with the use of old style chain and rubber stopper, as well as ordinary overflow strainer. The tub is emptied by merely pulling up the knob of the standing waste and when filled to overflowing, the excess water passes over the edge of the inner tube, and is carried away inside of the Roman Waste. As shown in the illustration, Roman Waste is placed outside of tub, and is made rigid by means of a nickel plated collar and bolt attached to a nickel plated flasher placed at the same point where the overflow strainer is attached on ordinary tubs. All fittings are made extra heavy, strong and substantial, so that the durability of this Premier Bath Tub may be placed absolutely beyond question.

Shipment These Tubs are shipped directly to customers from our factory in Southern Wisconsin, by this means assuring minimum amount of handling of fixtures and tub; while, of course, under our broad and binding guarantee, you run no risk of any kind, because safe delivery is always guaranteed. This extreme care exercised in packing and shipment is intended to protect you against all possibility of disappointment or delay incident to damage in transit.

GUARANTEED "A" GRADE ROLL RIM PORCELAIN ENAMELED BATH TUB



These tubs are guaranteed "A" grade and perfect workmanship. Made of the best grade of gray cast iron, heavily coated with white porcelain enamel. These tubs are 30 inches wide, heavy 3-inch roll rim, and can be furnished in lengths from 4 1/2' to 6' long, as quoted below:

Order No.	5-Z-103	5-Z-105	5-Z-107	5-Z-109
Length	4 1/2 ft.	5 ft.	5 1/2 ft.	6 ft.
Appr. Wt.	250 lbs.	300 lbs.	350 lbs.	400 lbs.
Price	\$28.50	\$28.75	\$32.75	\$40.00

Prices above do not include fittings.

Guaranteed perfect "A" quality bath tub, with nickel plated fittings above floor line. 30 inches wide, 3-inch roll rim; lengths from 4 1/2 to 6 foot. Fitted with nickel plated double bath cock, indexed for hot and cold water, nickel plated connected waste and overflow, nickel plated chain and rubber stopper, two nickel plated supply pipes, and nickel plated floor flange. Price complete with fittings for lead pipe connections. If iron pipe connections are wanted, add 75c to the prices.

Order No.	5-Z-203	5-Z-205	5-Z-207	5-Z-209
Length	4 1/2 ft.	5 ft.	5 1/2 ft.	6 ft.
Appr. Wt.	260 lbs.	300 lbs.	350 lbs.	400 lbs.
Price	\$35.75	\$36.00	\$40.00	\$47.25

WHITE PORCELAIN BATH TUB with COMBINATION BATH TRAP WASTE and OVERFLOW

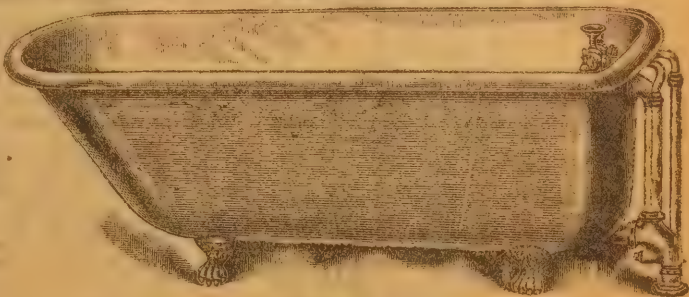
You will note from illustration the special feature of this Tub is the heavily nickel plated bath trap connected above floor directly to nickel plated waste and overflow pipes from Tub.

DIMENSIONS The Tubs are full 30 inches in width, with a massive 3-inch roll rim. Height of Tub on legs, 23 in. Depth inside, 17 in.

FITTINGS Each Tub is furnished complete as illustrated. Fittings consist of one nickel plated No. 4 1/2 Fuller pattern combination bath faucet, with Jewel cup, indexed for "Hot" and "Cold" water and special shampoo connection. Nickel plated connected waste and overflow with patent trap above floor, especially designed for high grade outfits. The trap on this connected waste and overflow is made of heavy cast brass, with clean-out plug and is heavily nickel plated all over. The Tub has two nickel plated 1/2-inch off-set supply pipes, with nickel plated floor flange. Has nickel plated chain and rubber stopper. You will note the above Tub is complete with all trimmings necessary above the floor.

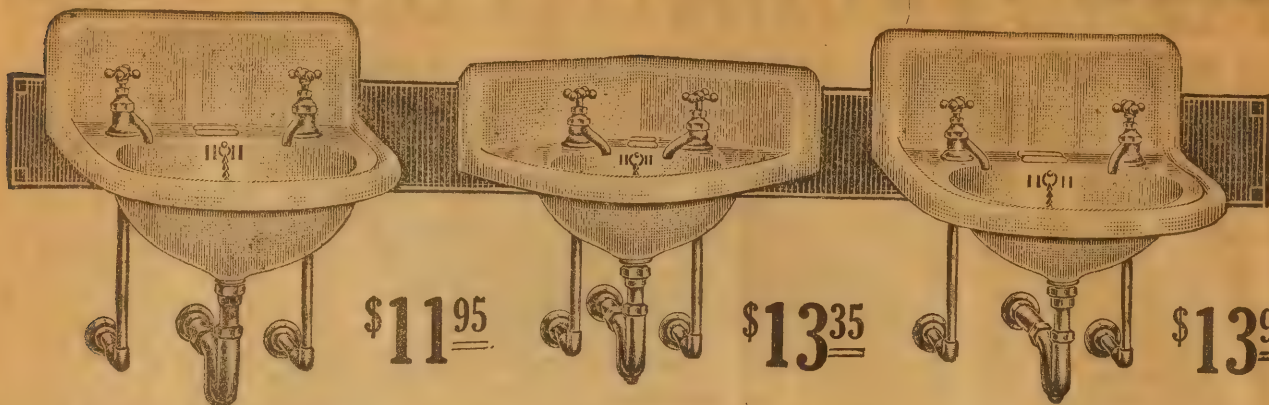
Price of Bath Tub Complete, with Connections for Lead Pipe.

Order No.	5-Z-221	5-Z-223	5-Z-225	5-Z-227
Length	4 1/2 ft.	5 ft.	5 1/2 ft.	6 ft.
Approx. weight	260 lbs.	300 lbs.	350 lbs.	400 lbs.
Price	\$40.00	\$40.50	\$44.50	\$53.50



Be sure to add 75c if you desire iron pipe connections.

White Porcelain Enameled Lavatories



Size of slab 17 in. x 19 in.; bowl 10½ in. x 13½ in.; height of back 6 in.

White porcelain enameled one-piece half circled lavatory with "D" pattern bowl. Easily and quickly attached to wall with concealed wall hangers furnished. Fitted complete with low down compression faucets with china tops marked "hot and cold." Nickel-plated ¼ in. "P" trap, supply pipes with flanges to wall. Nickel-plated chain and rubber stopper.

5-Z-401. Complete as described, with lead pipe connections.....\$11.95

5-Z-403. Complete as described, with iron pipe connections.....\$12.45

Length on sides 16¾ in.; bowl 10½ in. x 13½ in.; height of back 6 in.

White porcelain enameled one-piece roll rim corner lavatory with "D" pattern bowl. Easily attached to wall with concealed wall hangers furnished. Fitted complete with nickel-plated low down compression faucets with china tops marked "hot and cold." Nickel-plated ¼ in. "P" trap, supply pipes with flanges to wall. Nickel-plated chain and rubber stopper.

5-Z-601. Complete as described, with lead pipe connections.....\$13.35

5-Z-603. Complete as described, with iron pipe connections.....\$13.85

Size of slab 18 in. x 21 in.; bowl 10½ in. x 14½ in.; height of back 8 in.

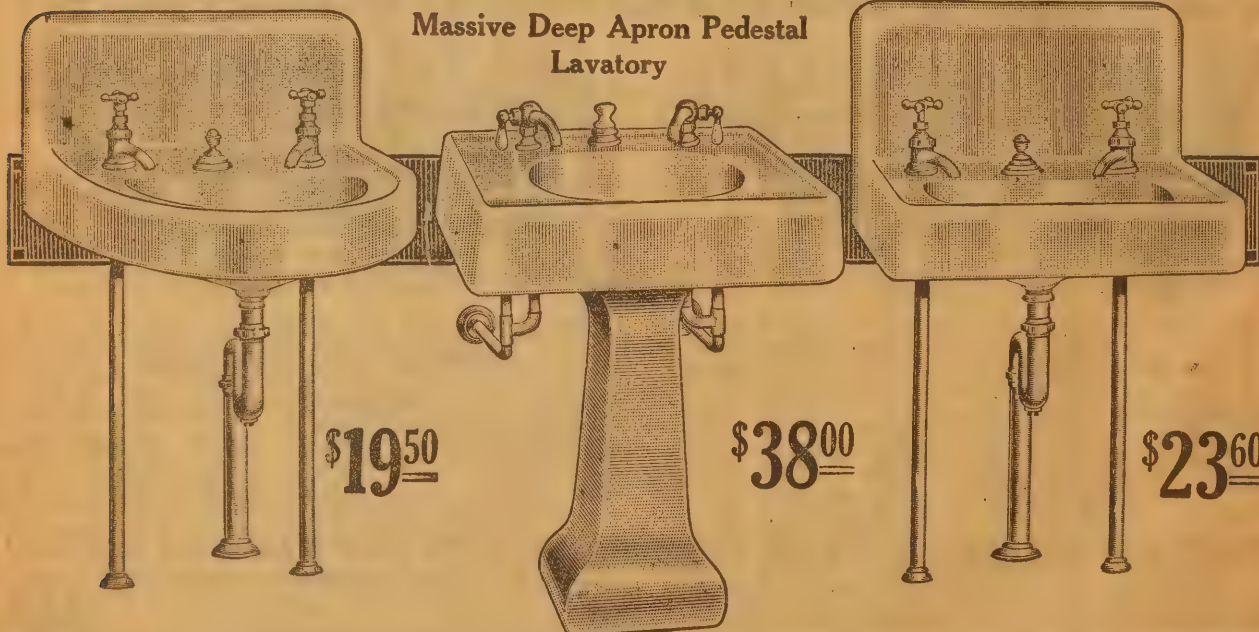
White porcelain enameled one-piece roll rim half circled lavatory with "D" pattern bowl. Easily hung with concealed wall hangers furnished. Fitted complete with two low down compression faucets with china tops marked "hot and cold." Nickel-plated ¼ in. "P" trap, supply pipes with flanges to wall. Nickel-plated chain and rubber stopper.

5-Z-480. Complete as described, with lead pipe connections.....\$13.90

5-Z-482. Complete as described, with iron pipe connections.....\$14.40

The Product of America's Leading Makers

Massive Deep Apron Pedestal Lavatory



Size of slab 18 in. x 21 in.; bowl 10½ in. x 14½ in.; height of back 8 in.

White porcelain enameled one-piece half circled deep apron lavatory with "D" pattern bowl. Quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with two low down compression faucets with china tops marked "hot and cold." Nickel-plated ¼ in. "S" trap, supply pipes with flanges to floor. Nickel-plated lifting waste with china index.

5-Z-421. Complete as described, with lead pipe connections.....\$19.50

5-Z-423. Complete as described, with iron pipe connections.....\$20.00

Size of slab 20 in. x 24 in.; oval bowl 11 x 15 in.; height of lavatory 31 in.

White porcelain enameled one-piece pedestal lavatory with oval bowl. Supported on a massive, properly proportioned white enameled pedestal. Fitted complete with nickel-plated model lifting waste with china knob and two fuller faucets with china handles "hot and cold." Nickel-plated offset air chamber, supply pipes and ¼ in. "P" trap to wall. This is an impressive lavatory and will give your bathroom a rich appearance.

5-Z-98. Complete as described, with iron pipe connections.....\$38.00

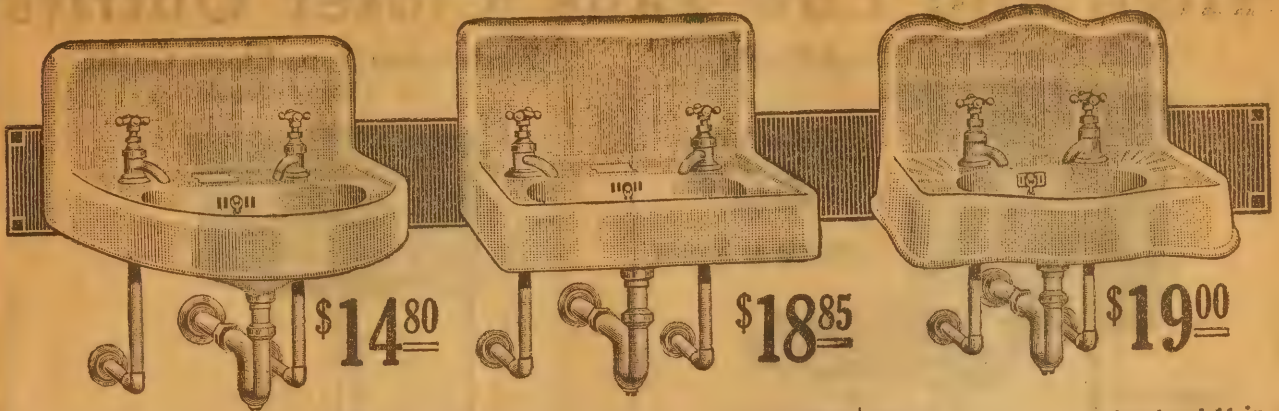
Size of slab 18 in. x 24 in.; bowl 11 in. x 15 in.; height of back 10 in.

White porcelain enameled one-piece square deep apron lavatory with "D" pattern bowl quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with nickel-plated model lifting waste with china index and two compression faucets with china tops, marked "hot and cold." Nickel-plated ¼ in. "S" trap, supply pipes with flanges to floor.

5-Z-441. Complete as described, with lead pipe connections.....\$23.60

5-Z-443. Complete as described, with iron pipe connections.....\$24.10

Priced Unusually Low for Big Economy



Size of slab 18 in. x 21 in.; bowl 10½ in. x 14½ in.; height of back 8 in.

White porcelain enameled one-piece half-circled deep apron lavatory with "D" pattern bowl. Quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with two nickel-plated low down compression faucets with china tops marked "hot and cold." ¼ in. nickel-plated "P" trap, supply pipes with flanges to wall. Nickel-plated chain and rubber stopper.

5-Z-411. Complete as described, for lead pipe connections..... **\$14.80**

5-Z-413. Complete as described, for iron pipe connections..... **\$15.30**

Size of slab 18 in. x 24 in.; bowl 11 in. x 15 in.; height of back 10 in.

White porcelain enameled one-piece square deep apron lavatory with "D" pattern bowl. Easily attached to wall with concealed wall hangers furnished. Fitted complete with two nickel-plated compression faucets with china tops marked "hot and cold." ¼ in. nickel-plated "P" trap, supply pipes with flanges to wall. Nickel-plated chain and rubber stopper.

5-Z-311. Complete as described, for lead pipe connections..... **\$18.85**

5-Z-313. Complete as described, for iron pipe connections..... **\$19.35**

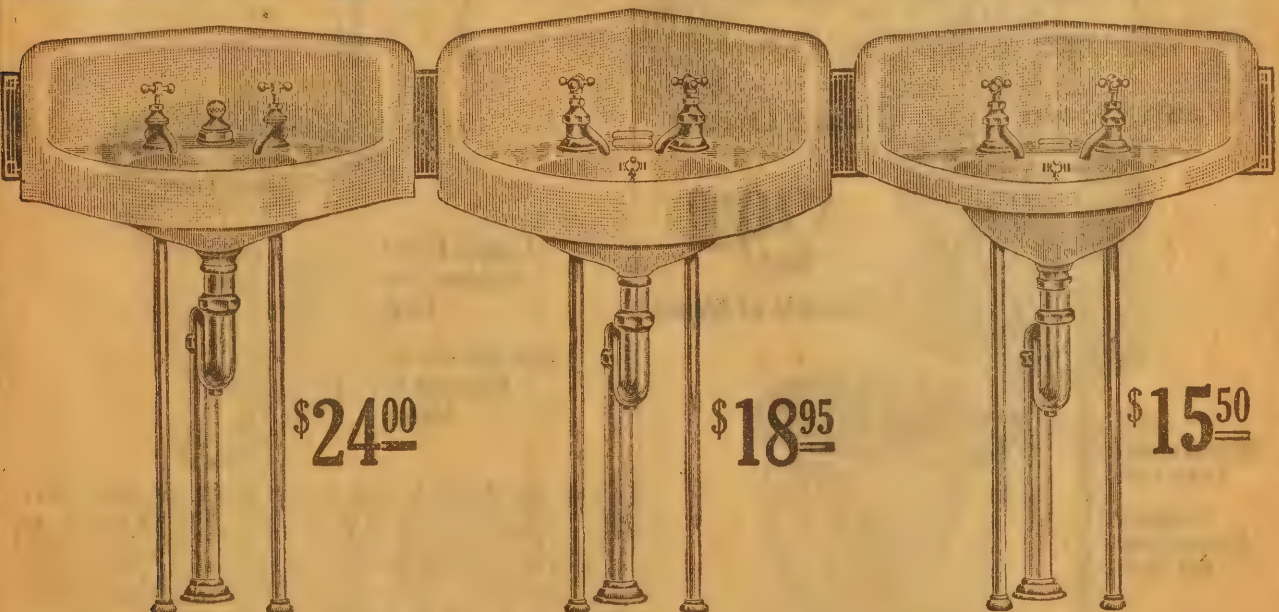
Size of slab 18 in. x 24 in.; bowl 11 in. x 15 in.; height of back 10 in.

White porcelain enameled one-piece shapely serpentine deep apron lavatory with "D" pattern bowl. Easily attached to wall with concealed wall hangers furnished. Fitted complete with two nickel-plated compression faucets with china tops marked "hot and cold." ¼ in. nickel-plated "P" trap, supply pipes with flanges to wall. Nickel-plated chain and rubber stopper.

5-Z-492. Complete as described, for lead pipe connections..... **\$19.00**

5-Z-494. Complete as described, for iron pipe connections..... **\$19.50**

Guaranteed in Every Way to Completely Satisfy



Length on sides 20 in.; bowl 11 in. x 15 in.; height of back 8 in.

White porcelain enameled one-piece deep apron corner lavatory with "D" pattern bowl. Supported on concealed wall hangers which are furnished. Fitted complete with nickel-plated model waste with china index and two compression faucets with china tops marked "hot and cold." ¼ in. nickel-plated "S" trap, supply pipes with flanges to floor.

5-Z-641. Complete as described, for lead pipe connections..... **\$24.00**

5-Z-643. Complete as described, for iron pipe connections..... **\$24.50**

Length on sides 20 in.; bowl 11 in. x 15 in.; height of back 8 in.

White porcelain enameled one-piece deep apron corner lavatory with "D" pattern bowl, quickly and easily attached to wall with concealed wall hangers furnished. Fitted complete with nickel-plated compression faucets with china tops marked "hot and cold." Nickel-plated ¼ in. "S" trap, supply pipes with flanges to floor. Nickel-plated chain and rubber stopper.

5-Z-621. Complete as described, for lead pipe connections..... **\$18.95**

5-Z-623. Complete as described, for iron pipe connections..... **\$19.45**

Length on sides 18¾ in.; bowl 10½ in. x 14½ in.; height of back 6 in.

White porcelain enameled one-piece roll rim corner lavatory with "D" pattern bowl. Supported on concealed wall hangers furnished. Fitted complete with nickel-plated low down compression faucets with china tops marked "hot and cold." Nickel-plated ¼ in. "S" trap, supply pipes with flanges to floor. Nickel-plated chain and rubber stopper.

5-Z-611. Complete as described, for lead pipe connections..... **\$15.50**

5-Z-613. Complete as described, for iron pipe connections..... **\$16.00**

High and Low Tank Closet Outfits

Wash Down Type Closet Outfit



\$22⁵⁰

Complete as Shown

Copper Lined
Golden Oak
Tank

Seat and Cover
Finished to
Match

Low tank closet outfit complete of dependable quality. Includes high grade tank finished in either polished golden oak or rich mahogany as desired; lined with heavy copper and fitted with rubber ball valve, which is operated by a push button; best interior fittings. Smooth white vitreous earthenware wash down type bowl. Seat and cover finished to match tank; nickel-plated elbow and supply pipe.

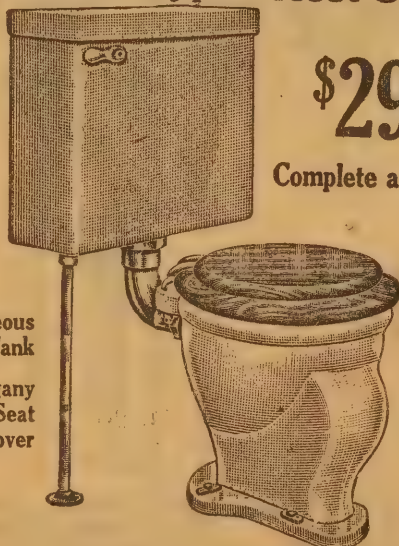
5-Z-801. Complete as described with seat and tank finished in golden oak; for lead pipe connections..... **\$22.50**

5-Z-803. Complete as described with seat and tank finished in golden oak; for iron pipe connections..... **\$22.75**

5-Z-802. Complete as described with seat and tank finished in rich mahogany; for lead pipe connections..... **\$24.00**

5-Z-804. Complete as described with seat and tank finished in rich mahogany; for iron pipe connections..... **\$24.25**

Wash Down Type Closet Outfit



\$29⁰⁰

Complete as Shown

White Vitreous
China Tank

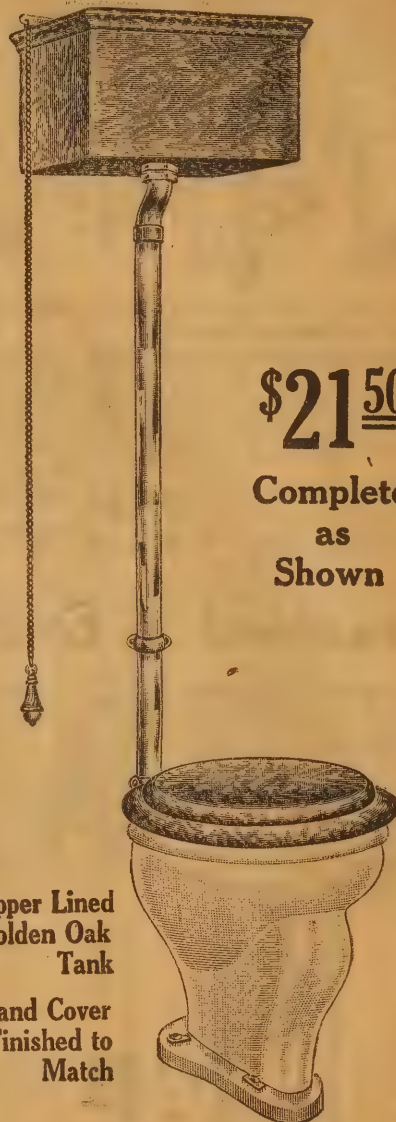
Mahogany
Finished Seat
and Cover

Low tank closet outfit complete of excellent quality. Includes handsome white vitreous china tank with best interior fittings to insure a strong positive flush at all times; operated by white china lever. Shapely white vitreous earthenware wash down closet bowl glazed inside and out. Seat and cover finished in rich mahogany attached to bowl with heavy nickel-plated offset hinges. Nickel-plated elbow and supply pipe.

5-Z-1001. Complete as described with rich mahogany seat and cover; for lead pipe connections..... **\$29.00**

5-Z-1003. Complete as described with seat and cover finished in rich mahogany; for iron pipe connections..... **\$29.25**

Wash Down Type Closet Outfit Top or Bottom Supply



\$21⁵⁰

Complete
as
Shown

Copper Lined
Golden Oak
Tank

Seat and Cover
Finished to
Match

Top supply high tank closet outfit complete offering substantial value. Includes highly finished golden oak tank lined with heavy copper; fitted with an improved valve insuring a strong flush; operated by nickel-plated chain. White vitreous earthenware wash down type closet bowl of neat pattern. Golden oak seat and cover finished to match tank attached to bowl with heavy nickel-plated offset hinges, one and a quarter inch nickel-plated flush pipe and 1 1/4 inch N. P. elbow, to connect flush pipe to bowl.

5-Z-1101. Complete as described; for lead pipe connections..... **\$21.50**

5-Z-1103. Complete as described; for iron pipe connections..... **\$21.75**

Furnished with Bottom Supply High Tank

The high tank closet outfit above is also furnished for bottom supply, complete with heavy copper-lined, highly polished golden oak tank, wash down type, white vitreous earthenware closet bowl fitted with seat and cover finished to match tank and equipped with 1 1/4 in. nickel-plated offset hinges, one and a quarter inch nickel-plated flush pipe from tank to floor.

5-Z-1111. Complete as described for bottom supply with lead pipe connections..... **\$23.00**

5-Z-1115. Complete as described for bottom supply with iron pipe connections..... **\$23.25**

Priced Very Low for Big Economy!

Syphon Jet Type Closet Outfit Top or Bottom Supply

\$27⁵⁰

Complete
as
Shown



Copper Lined
Golden Oak
Tank

Seat and Cover
Finished to
Match

Top supply high tank closet outfit complete of improved design. Includes heavy copper lined highly finished golden oak tank equipped with latest improved valve and operated by a nickel-plated chain puller. Latest pattern Syphon jet bowl made of white vitreous earthenware highly glazed both inside and out. Seat and cover in golden oak finished to match the tank and attached to bowl with heavy nickel-plated offset hinges. 1 1/4 in. nickel-plated flush pipe.

5-2-1201. Complete as described with lead pipe connections..... **\$27.50** | 5-2-1203. Complete as described with iron pipe connections..... **\$27.75**

Furnished with Bottom Supply High Tank

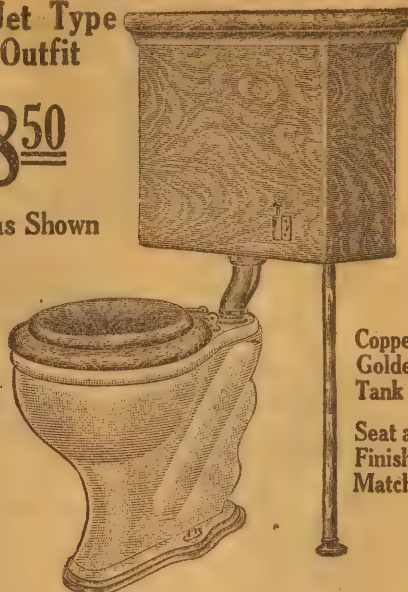
The high tank closet outfit above is also furnished for bottom supply, complete with heavy copper lined highly polished golden oak tank. Syphon jet type bowl fitted with seat and cover finished to match tank and equipped with 1 1/4 in. nickel-plated flush pipe from tank to bowl; 5/8 in. nickel-plated supply pipe from tank to floor.

5-2-1211. Complete as described for bottom supply with lead pipe connections..... **\$29.00** | 5-2-1215. Complete as described for bottom supply with iron pipe connections..... **\$29.25**

Syphon Jet Type Closet Outfit

\$28⁵⁰

Complete as Shown



Copper Lined
Golden Oak
Tank

Seat and Cover
Finished to
Match

Low tank closet outfit complete of improved design. Includes finest tank highly finished in either polished golden oak or rich mahogany; lined with heavy copper and fitted with best improved valve, insuring a strong flush of water with a light touch of the push button. Latest pattern white vitreous earthenware Syphon jet closet bowl. Seat and cover finished to match tank; attached to bowl with heavy nickel-plated offset hinges. Nickel-plated offset and supply pipe.

5-2-811. Complete as described with mahogany finished tank and seat for lead pipe connections.. **\$28.50** | 5-2-812. Complete as described with mahogany finished tank and seat for lead pipe connections. **\$29.50**
5-2-813. Complete as described with mahogany finished tank and seat for iron pipe connections.. **\$28.75** | 5-2-814. Complete as described with mahogany finished tank and seat for iron pipe connections. **\$29.75**

Syphon Jet Type Closet Outfit

\$35⁰⁰

Complete as Shown



White
Vitreous China
Tank

Mahogany
Finished Seat
and Cover

Low tank closet outfit complete of finest quality. Includes beautiful highly polished white vitreous earthenware massive square tank; easily kept clean. Fitted with latest improved rubber ball valve flush system made with fittings of heavy brass and copper; positive flush to bowl with light pressure on white china handle. White vitreous earthenware improved Syphon jet bowl glazed both inside and out. Rich mahogany finished seat and cover attached to bowl with heavy nickel-plated offset hinges. Nickel-plated offset and supply pipe.

5-2-1021. Complete as described with lead pipe connections..... **\$35.00** | 5-2-1023. Complete as described with iron pipe connections..... **\$35.50**

CLOSET BOWLS FOR LOW TANK OUTFITS

Closet Bowl for Low Tank Outfits

Our latest design wash-down Syphon bowl, is a combination hopper and trap, made of the best grade of Vitreous earthenware, with highly glazed finish, strictly sanitary and easily kept clean, guaranteed A grade.

2-inch spud for use with low tank outfits. Weight about 50 pounds.

5-Z-1301. Wash - down Closet Bowl, complete, as described above, Price **\$9.00**



CLOSET BOWLS FOR HIGH TANK OUTFITS

Wash - Down Syphon Bowl, or Combination Hopper and Trap for Use with High Tank Closet

Made of the best grade of Vitreous earthenware with highly glazed finish inside and out, easily kept clean, perfectly sanitary, furnished with 1 1/4 inch spud guaranteed A grade quality. Weight about 50 lbs.

5-Z-1305. Price, complete.... **\$9.00**



Syphon Jet Bowl for Use With Low Tank Outfits

Illustration shows plain earthenware Syphon Jet Closet Bowl with seat attachment and 2-inch spud. Bowl is made of finest grade of Vitreous earthenware with highly glazed white finish inside and out. Most sanitary type, easily kept clean, guaranteed A grade. Weight about 60 pounds.

5-Z-1303. Price, complete.. **\$14.50**



Syphon Jet Bowl for Use With High Tank Closet

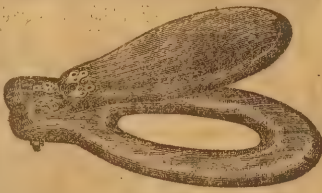
This is the latest design plain earthenware Syphon Jet closet bowl. Made of Vitreous earthenware with highly glazed finish inside and out furnished with 1 1/4 inch spud. Guaranteed A grade and first quality. Weight about 60 lbs.

5-Z-1307. Syphon Jet Closet Bowl complete, as described. Price. **\$14.50**

Flat Hinge Closet Seat

This is a high grade Golden Oak or Mahogany finish closet seat. Cover is attached direct to seat with flat heavy brass hinges, nickel-plated. Weight about 15 lbs.

5-Z-1309. Flat Hinge Seat complete, as illustrated, Price **\$2.95**



Off-Set Hinge Seat

Seat is furnished complete, as illustrated. Has a fine Golden Oak or Mahogany finish, highly polished, is furnished complete with nickel-plated off-set hinges, which are made of heavy cast brass. This is the very latest design in closet seats. Weight about 15 lbs.

5-Z-1311. Off-Set Hinge Seat complete, as shown, Price, complete..... **\$2.95**



High Tanks

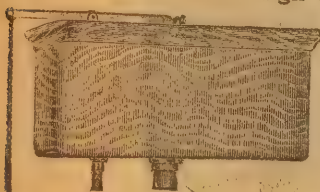
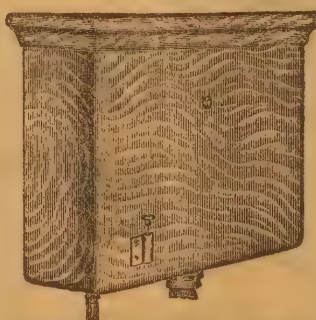


Illustration shows the latest design in High Tanks for water closet. Made of the very best quality of material, Golden Oak finish, highly polished, is attached to wall by means of Concealed Wall Hangers, doing away with the unsightly brackets. Is furnished with nickel-plated chain and pull. Is lined with heavy sheet copper, has a nickel-plated flush pipe connection. Weight about 30 lbs.

5-Z-1315. High Tank complete, as shown. Price (Bottom Supply) **\$9.40**

5-Z-1317. Tank, same as above, Price (Top Supply) **\$9.40**

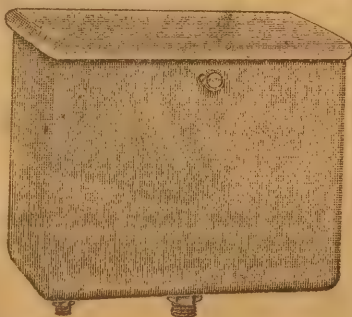


Low-Down Wood Tank

The latest design in low-down wood tanks for use with water closets. Made of the finest quality of materials, has a beautiful Golden Oak finish, highly polished. Has a nickel-plated push button. Fitted complete with Douglas pattern Valve. Lined to the water level with heavy sheet copper, then capped off with heavy galvanized iron strips. Furnished complete with 3/4-inch nickel-plated supply pipe and nickel-plated floor flange. Shipping weight about 45 lbs. 8 gallons.

5-Z-1325. Low-Down Wood Tank complete, as described above. Price. **\$12.00**

Enameled Steel Low Tank



This is the celebrated enameled Steel Tank for use with low-down water closet outfits. It is acknowledged by the Plumbing Experts to be the finest tank ever produced, being absolutely proof against corrosion from water containing alkali, acids, etc. Prevents tank sweating. Outside of tank is heavily coated with White Porcelain Enamel thoroughly baked and giving it a handsome glazed finish and is easily kept clean.

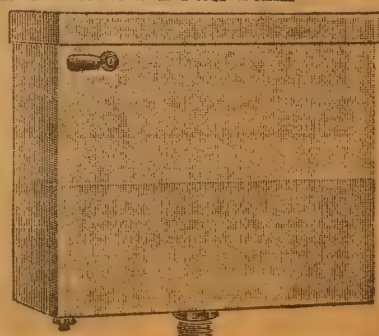
It has a compound ball cock, which is the simplest flushing mechanism on the market, furnished complete with 3/4-inch nickel-plated supply pipe and push button, and nickel-plated outlet connection with floor flange. Weight about 55 lbs.

5-Z-1331. Enamel Steel Low-Down Tank, as described above. Price..... **\$17.00**

White Vitreous China Low-Down Tank

Our Special Improved white vitreous china tank plain front, round corner with improved flat shelf top, and our patent wall attachment is an absolutely no worry tank. There are no linings to contend with on these tanks so they will not leak. No water or chemical action has any effect on these tanks, will not craze or crack and easily cleaned and will look good forever. Tank has latest improved rubber ball valve. All fittings are made of heavy brass and copper. Valve is operated by a china lever in front of tank. Very slight pull releases the valve and causes a strong, positive flush in the bowl. Tank has holes drilled in the back so as to fasten it to the wall, a very easy and simple operation.

9-Z-1336. Price complete as described above and shown in illustration. only..... **\$17.50**



Chemical Indoor Closet

Study This Lesson of Common Sense

\$8.75



Realize This Comfort

Stop This Now!!

Better and Different
From All Others

The Harris chemical toilet has many exclusive features and important advantages over all others. Made with a regulation shaped closet seat with cover and continuous ventilating system.

You Can Try This Closet
For 30 Days

ENTIRELY AT OUR EXPENSE!

We want all of our customers to use the splendid Harris Chemical Toilet in their own homes for thirty days at our expense. In this way you can convince yourself of its superiority over all others and that it is all we claim for it in our guarantee. At the end of thirty days if you are not entirely satisfied, send it back and we will return your money, including the transportation charges you have paid.

Read Our Guarantee!
You Must Be Satisfied!

The Guarantee The Harris Chemical Indoor Closet to be the best and most efficient toilet of its kind offered today—absolutely odorless, sanitary, germ-proof, convenient and practical—finest material and excellent construction throughout exactly as illustrated and described on this page.

HARRIS BROTHERS COMPANY

Every Convenience of the Modern Toilet for the Country, Village and Suburban Home!

Protect your family against the dangers and inconvenience of the outdoor privy—eliminate forever the breeding place of flies and contagious disease germs. You can buy the best chemical indoor closet and save nearly half during this sale. It will prove to be a great home comfort—convenient to every member of the family throughout the year. The Harris Chemical Indoor Toilet is a positive necessity during bad weather, storms or at night—a God-send during sickness—a protection to morals of your children—a guardian of purity to your drinking water—a clean, sanitary method of sewage disposal—a modern toilet easily within the reach of everyone now.

Detailed Description of the Harris Chemical Toilet

The Harris Chemical Indoor Closet is fitted with the regular shaped closet seat and cover highly finished in birch mahogany. The base and frame work of the outer casing are made of solid cast metal. The outer casing is made of rolled sheet steel which, together with all other metal parts, including 9 feet of 3 in. exhaust pipe, are beautifully enameled in azure blue. The inner receptacle containing the chemical is suspended on lugs. Steady ventilation is assured by means of ventilators leading to the exhaust pipe. This inner receptacle is made of metal, heavily galvanized—will not absorb odors and is unaffected by acids—easy to keep clean. The exhaust pipe can be connected to any chimney flue or may be installed to extend through the roof from the most convenient room. Simply put a cup of chemical and three or four cups of water in the container, and it is ready for use.

5-Z-1816 Harris Chemical Indoor Closet, including two elbows, eight lengths of 3-in. pipe, 14 in. long, wall collar, one gallon of Harris guaranteed chemical disinfectant (about 6 months' supply), carefully packed in wood box..... **\$8.75**

—EXTRAS—

Harris chemical disinfectant.....	\$1.50	Roof saddles, each.....	.75c
Per gallon.....		Extra elbows, each.....	.25c
		Extra exhaust pipe, per 14-in. length.....	.25c

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Going to Build? Let Us Show You How to Save Money!

115

Sink Outfits and Accessories

\$15⁰⁰



SUCTION PIPE FROM CISTERN

A Splendid Kitchen Sink Outfit

This kitchen sink outfit has been assembled especially for the country and suburban home. An important feature is the back outlet in the pump which permits you to force the water to any height of floors above by simply shutting off the faucet. A hose can be attached to the faucet for sprinkling purposes and fire protection.

The outfit as illustrated is furnished complete with high grade flat rim cast iron porcelain lined sink fitted with nickel-plated strainer and 1½ in. lead "P" trap with outlet to wall, fitted for 1½ in. iron pipe connection. Sink has two cast iron brackets. The high grade force pump is made with 2½ in. brass lined cylinder with air chamber, insuring a steady flow of water; easy to pump. The pump is fitted for 1½ in. galvanized suction pipe. Back outlet of pump fitted for 1 in. pipe. Pump board not included.

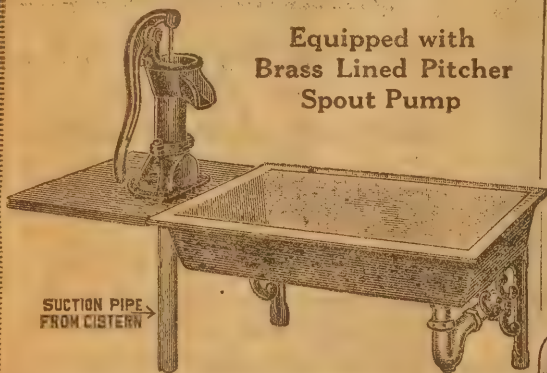
5-Z-1621. Kitchen sink outfit complete with sink size 18 in. x 30 in. with iron pipe connections..... **\$15.00**

5-Z-1623. Kitchen sink outfit complete with sink size 18 in. x 36 in. with iron pipe connections..... **\$17.00**

5-Z-1625. Kitchen sink outfit complete with sink size 20 in. x 30 in. with iron pipe connections..... **\$15.50**

Kitchen Sink Outfit

Equipped with
Brass Lined Pitcher
Spout Pump

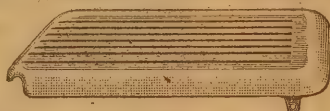


SUCTION PIPE FROM CISTERN

This kitchen sink outfit is identically the same as the one above except that we furnish a brass lined pitcher spout pump fitted for 1 in. iron pipe connection.

5-Z-1601. Outfit complete with 18 in. x 30 in. sink with iron pipe connection..... **\$12.60**
5-Z-1604. Outfit complete with 18 in. x 36 in. sink with iron pipe connection..... **\$14.85**
5-Z-1605. Outfit complete with 20 in. x 30 in. sink with iron pipe connection..... **\$14.40**
5-Z-1607. Outfit complete with 20 in. x 36 in. sink with iron pipe connection..... **\$15.60**
5-Z-1609. Outfit complete with 20 in. x 40 in. sink with iron pipe connection..... **\$18.00**

White Enameled Drainboards

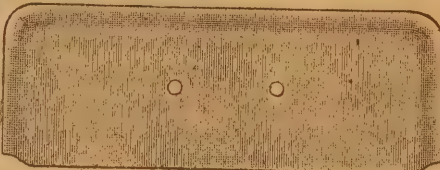


5-Z-1780. Interchangeable and can be used on either end of sink. Furnished complete with cast iron bracket.

SIZES AND PRICES

18x18 inches	.....	\$5.60
18x20 inches	.....	6.15
18x24 inches	.....	6.55
20x20 inches	.....	6.40
20x24 inches	.....	7.05

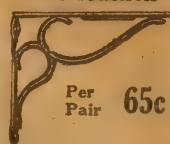
White Enameled Sink Backs



5-Z-1713. Designed for use with flat rim sinks drilled for two faucets. Size 12 in. high and 2½ in. deep.

Size 24 in. long..	\$4.85	Size 36 in. long..	\$7.25
Size 30 in. long..	5.55	Size 40 in. long..	8.30

Sink Brackets



Per Pair **65c**

5-Z-1723. Cast iron sink brackets of neat design, strong and substantial.
For sinks 18 in. and 16 in., per pair..... **65c**
For sinks 20 in. and larger, per pair..... **75c**

Sink Couplings

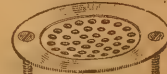


Illustration at left shows sink couplings for lead pipe connections.

Illustration at right shows sink couplings for iron pipe connections.

5-Z-1737. Cast iron coupling for lead pipe connections, 70
5-Z-1739. Cast iron coupling for 1½ in. and 1½ in. iron pipe connections, each..... **25c**

Sink Strainers



5-Z-1727. Nickel-plated sink strainers.
Each..... **25c**

Sink Plugs



5-Z-1729. Furnished complete as illustrated, nickel-plated.
Each..... **32c**

Sink Bolts



5-Z-1733. Screw head bolts for cast iron sinks.
Each..... **20c**

Excellent Bath Outfit

This outfit is just the thing for the home without running water. It is composed of a high grade nickel-plated gasoline water heater with copper bottom and water coil. Water drawn from the tank passes through the receptacles giving hot water in an instant. Sufficient water for your bath can be heated in fifteen minutes. Tub furnished is made of heavy steel smoothly coated on the inside and capped with nicely finished oak top rim. Cast iron legs nicely ornamented. Tub is equipped with connected waste and overflow and fitted for 1½ in. pipe.

5-Z-1811. Bath outfit complete as described with tub 4½ ft. long for iron pipe connection..... **\$26.00**

5-Z-1813. Bath outfit complete as described with tub 5 ft. long for iron pipe connection..... **\$26.25**

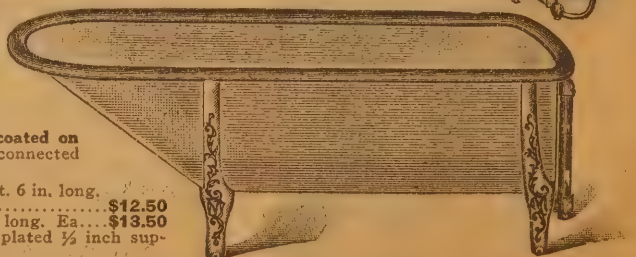
SEE EXTRAS BELOW

If Bath Tub Only Is Wanted

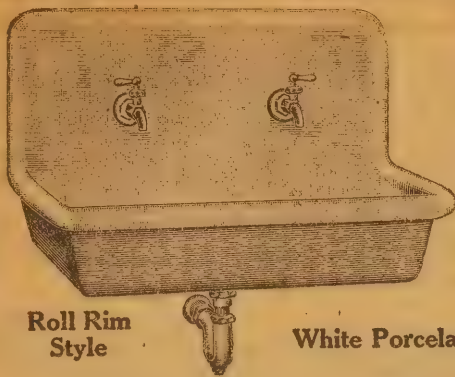
We can furnish the tub only, made of heavy sheet steel smoothly coated on the inside and capped with nicely finished oak top rim, equipped with connected waste and overflow and fitted for 1½ in. pipe.

5-Z-1801. Tub only, 4 ft. 6 in. long..... **\$11.25** Each
5-Z-1803. Tub only, 5 ft. long, Ea. **\$11.50**
5-Z-1805. Tub only, 5 ft. 6 in. long..... **\$12.50** Each
5-Z-1807. Tub only, 6 ft. long, Ea. **\$13.50**

If Fuller double bath cock to fit tub is wanted, add \$3.30. If nickel-plated ½ inch supplies for iron pipe connections are wanted, add, per pair, \$2.00.



Kitchen Sinks at Unusual Savings!



**Roll Rim
Style**

White Porcelain Enameled



**One-Piece Sink
Fitted With
Enameled Drainboard**

**Two Adjustable Painted Legs
Furnished if Wanted for \$3.00**

Excellent kitchen sink furnished with or without drain board as illustrated above. Made of smooth gray iron heavily coated on the inside and over the rim and back with white porcelain enamel baked on to the highest degree of hardness, giving a highly polished finish; very neat, attractive and easy to clean. Furnished complete as shown with two nickel-plated $\frac{1}{2}$ in. flanged plain faucets, nickel-plated sink strainer and $\frac{1}{2}$ in. lead "P" trap to wall. Sink is attached to wall with concealed wall hangers; easy and simple to erect.

Prices Without Drainboard

Number.	Size of Sink.	Price.
5-Z-1631.	18 in. x 24 in.	\$15.10
5-Z-1632.	20 in. x 24 in.	16.70
5-Z-1635.	18 in. x 30 in.	16.30
5-Z-1639.	20 in. x 30 in.	17.30
5-Z-1643.	20 in. x 36 in.	19.30

Complete With Drainboard

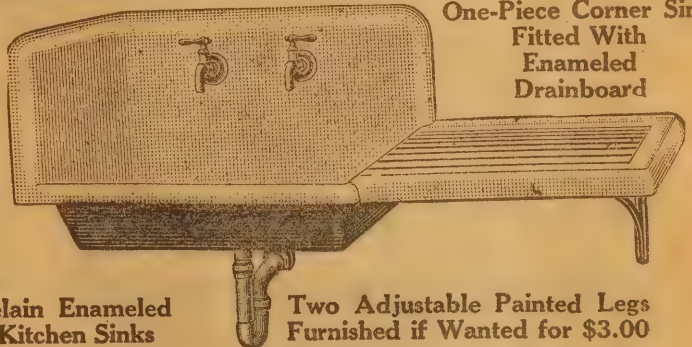
Number.	Size of Sink.	Size of Drainboard.	Price.
5-Z-1675.	18 in. x 24 in.	18 in. x 20 in.	\$20.55
5-Z-1677.	20 in. x 24 in.	20 in. x 24 in.	23.00
5-Z-1679.	18 in. x 30 in.	18 in. x 24 in.	23.15
5-Z-1681.	20 in. x 30 in.	20 in. x 24 in.	23.60
5-Z-1683.	20 in. x 36 in.	20 in. x 24 in.	25.60

If you intend to install the sink yourself, specify iron pipe connection and add 75c to the prices above.



**Corner Style
Roll Rim**

**White Porcelain Enameled
One-Piece Kitchen Sinks**



**One-Piece Corner Sink
Fitted With
Enameled
Drainboard**

**Two Adjustable Painted Legs
Furnished if Wanted for \$3.00**

These splendid high back one-piece roll rim sinks are furnished for right or left corner as desired. Being cast in one-piece and heavily coated with white porcelain enamel on the inside and over the rim and back, there are no crevices or corners to catch the dirt. Back and end piece are 12 in. high. Furnished complete with nickel-plated strainer, $\frac{1}{2}$ in. nickel-plated faucets and $\frac{1}{2}$ in. lead "P" trap to wall. Quickly and easily attached to wall with substantial concealed wall hangers.

Prices Without Drainboard

5-Z-1633.	Furnished complete as described, size 20 in. x 24 in.	\$20.00
5-Z-1634.	Furnished complete as described, size 20 in. x 30 in.	22.35
5-Z-1636.	Furnished complete as described, size 20 in. x 36 in.	25.20

Complete With Drainboard

5-Z-1676.	Furnished complete as described, size 20 in. x 24 in.	\$26.30
5-Z-1680.	Furnished complete as described, size 20 in. x 30 in.	29.65
5-Z-1682.	Furnished complete as described, size 20 in. x 36 in.	31.50

If you intend to install the sink yourself, specify iron pipe connection and add 75c to prices above.

Flat Rim Cast Iron Kitchen Sinks

Furnished Painted or In White Porcelain Enamel

These high grade flat rim cast iron sinks are furnished with the inside painted or coated with white porcelain enamel over rim. Sizes will be found in the list below offered at substantial savings. All sinks are furnished complete with nickel-plated strainer, iron sink collar and bolts. Collar can also be fitted for $1\frac{1}{4}$ in. or $1\frac{1}{2}$ in. iron pipe connection if desired. Faucets and trap not included in these prices. If iron pipe connections are wanted for these sinks, add 25c to the prices below.

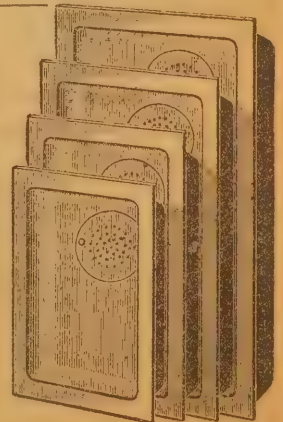
These sinks are used for basement or factory purposes or wherever a strong inexpensive sink can be used. The enameled sinks are very desirable for they are easily cleaned and neat appearing.

Painted Cast Iron Sinks

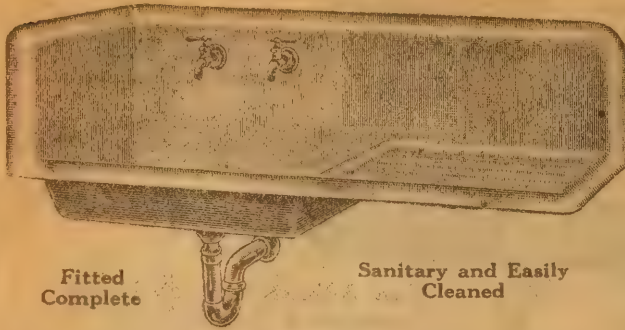
5-Z-1701.	Size 18 x 24	\$3.85
5-Z-1702.	Size 18 x 30	4.25
5-Z-1703.	Size 18 x 36	5.00
5-Z-1704.	Size 20 x 30	4.80
5-Z-1705.	Size 20 x 36	5.60
5-Z-1706.	Size 20 x 40	6.40

White Porcelain Enameled Sinks

5-Z-1709.	Size 18 x 24	\$ 6.50
5-Z-1710.	Size 18 x 30	6.20
5-Z-1711.	Size 18 x 36	9.00
5-Z-1712.	Size 20 x 30	6.95
5-Z-1713.	Size 20 x 36	9.60
5-Z-1714.	Size 20 x 40	13.00



Newest and Most Popular Designs



Fitted
Complete

Sanitary and Easily
Cleaned

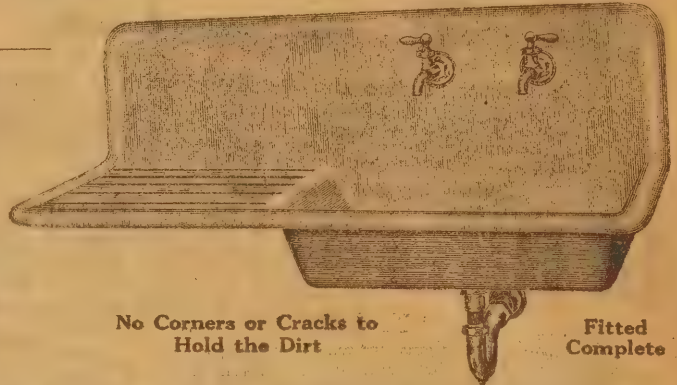
This popular sink features all that is best in a combination sink, back and drain board cast in one piece. Heavily coated on the inside and over the back and wide roll rim with white porcelain enamel. There are no cracks or crevices to catch the dirt; easy to clean and keep in attractive condition at all times. Quickly and substantially attached to wall with strong concealed wall hangers which we furnish without extra charge. Fitted complete with two nickel-plated faucets and lead "P" trap to wall.

5-Z-1791. 44 inches long, with left or right drain board	\$23.50
5-Z-1793. 48 inches long, with left or right drain board	27.00
5-Z-1795. 52 inches long, with left or right drain board	30.25
Adjustable painted cast iron legs furnished if wanted. Per pair	3.00
Iron pipe connections.....	.50
If lead "S" trap to floor is wanted in place of lead "P" trap to wall as illustrated, specify this when you order.	

Here is a popular kitchen sink heavily coated with white porcelain enamel, sanitary and easy to keep clean. Made in one piece without cracks or corners to catch the grease and dirt. Furnished complete with two nickel-plated faucets and lead "P" trap to wall. Quickly and easily attached to wall with strong concealed wall hangers which are furnished without extra charge.

5-Z-1792. 44 inches long, for right or left corner.....	\$31.65
5-Z-1794. 48 inches long, for right or left corner.....	33.40
5-Z-1796. 52 inches long, for right or left corner.....	35.20
Adjustable painted cast iron legs furnished if wanted. Per pair	3.00
Iron pipe connections.....	.50

If lead "S" trap to floor is wanted in place of lead "P" trap to wall as illustrated, specify this when you order.



No Corners or Cracks to
Hold the Dirt

Fitted
Complete

There is nothing lacking in this splendid kitchen sink. Neat in design, sanitary and easy to keep spotlessly clean—a roll rim sink with back drain board and end piece, all cast in one piece, heavily coated with hard snow-white porcelain enamel. There are no cracks or corners to collect and hold grease or dirt. Furnished complete with concealed wall hangers, nickel-plated improved strainer, 1/2 in. nickel plated Fuller flange bibbs, and 1 1/2 in. lead trap to wall or floor. Furnished in three sizes with right or left end piece.

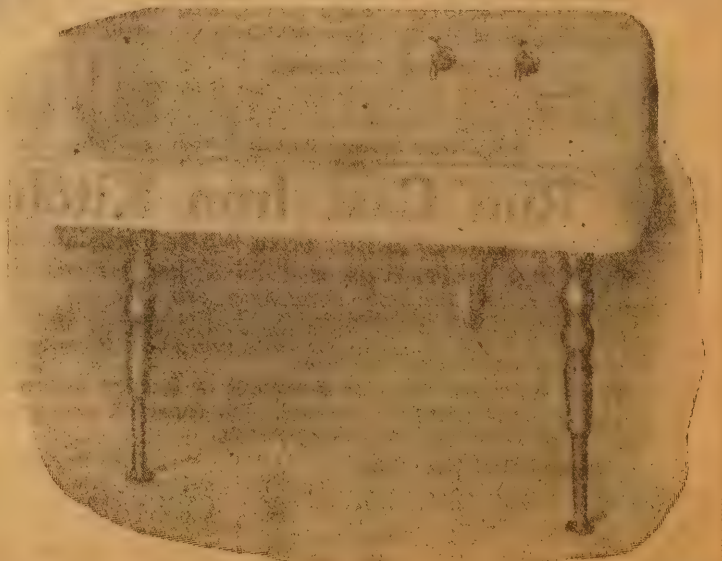
5-Z-1797. 44 inches long, with right or left end piece	\$31.75
5-Z-1798. 48 inches long, with right or left end piece	33.50
5-Z-1799. 52 inches long, with right or left end piece	35.30
Adjustable painted legs per pair.....	3.00
If iron pipe connections are wanted add.....	.50

An elegant kitchen sink with deep apron, back, drain board and end piece, cast in one piece. An impressive design, neat and easily clean—no corners or cracks to hold the grease and dirt.

Supported on adjustable painted legs, and firmly attached by concealed wall hangers.

Furnished complete with nickel-plated improved strainer, 1/2 in. Fuller flange bibbs and 1 1/2 in. lead trap to wall or floor, three sizes, furnished with right or left end piece. Be sure to state whether right or left style is wanted when you order.

5-Z-1854.	44 inches long, with right or left end piece	\$43.60
5-Z-1857.	48 inches long, with right or left end piece	48.00
5-Z-1858.	52 inches long, with right or left end piece	52.00
If iron pipe connections are wanted add		.50



One-Piece Deep Apron Kitchen Sinks

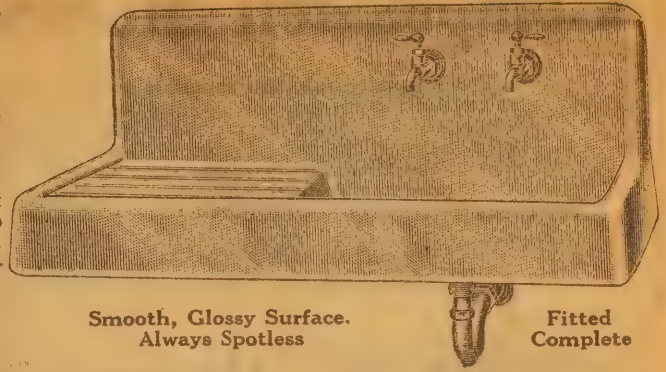
One Piece Kitchen Sink. Right or Left Drainboard

Good looking sanitary kitchen sink featuring a one-piece combination of sink, back and drain board cast in one piece of smooth gray iron and heavily coated on the inside and over the deep apron and back with white porcelain enamel. No cracks or crevices to collect grease and dirt. Notice especially the deep apron 5 in. wide, which gives this sink a rich, massive appearance. Furnished complete with two high grade nickel-plated faucets and lead "P" trap to wall. Quickly and easily attached to the wall with strong concealed wall hangers which are furnished without charge.

5-Z-1846.	44 inches long, with left or right drain board	\$40.00
5-Z-1848.	48 inches long, with left or right drain board	\$44.25
5-Z-1850.	52 inches long, with left or right drain board	49.45

Two adjustable painted cast iron legs furnished.

Lead "S" trap to floor furnished if wanted in place of lead "P" trap to wall as shown.



Smooth, Glossy Surface.
Always Spotless

Fitted
Complete

Furnished complete with left or right drain board. Left drain and lead "P" trap to wall as illustrated will be sent unless otherwise specified.

One Piece Kitchen Sink for Right or Left Corner

An impressive corner kitchen sink made in one piece, including sink, drain board, back and end piece, 12 in. high, heavily coated with white porcelain enamel on the inside and over drain board, back and 5 in. deep apron with white porcelain enamel. Made in sanitary style with round corners; no cracks or crevices to catch dirt. Easily cleaned and kept in beautiful condition with little effort. Furnished complete with two high grade nickel-plated faucets and lead "P" trap to wall. Quickly and easily attached to wall with strong concealed wall hangers which are furnished without extra charge.

5-Z-1853.	44 inches long, for right or left corner	\$43.50
5-Z-1855.	48 inches long, for right or left corner	\$47.90
5-Z-1856.	52 inches long, for right or left corner	51.95

Two adjustable painted cast iron legs furnished.

Lead "S" trap to floor furnished if wanted in place of lead "P" trap to wall.



No Joints to Collect Grease

Fitted
Complete

Furnished for either right or left corner as desired. Right corner style with lead "P" trap to wall will be sent unless otherwise specified in your order.

62 Inch Double Drainboard Sink

Deep Apron Style in White Porcelain Enamel **\$54⁵⁰**

This elegant kitchen sink embodies every feature of rich appearance and every convenience you could wish for. Nothing has been spared to produce the finest kitchen sink from every standpoint; yet we are able to offer our special stock at a price you will be glad to pay. If you are looking for the best sink that money can buy, one that you will enjoy taking care of, let this be your choice.

Made of best gray cast iron with double drain board, sink basin and back cast in one piece. Heavily and evenly coated on the inside and over the deep 5 in. apron with glossy white porcelain enamel. The enamel coating is perfectly applied and baked on for life long service. Two adjustable painted cast iron legs are furnished to complete the sanitary clean appearance.

Size of sink basin 20 in. x 26 in. Length of sink over all, 62 in; height of back 12 in. Made with rounded corners and easily cleaned. Furnished complete with two high grade nickel-plated compression faucets, nickel-plated strainer and 1½ in. "P" trap to wall.

5-Z-1864.	Kitchen sink, 62 inches long, complete with all fittings for iron pipe connections	\$54.50
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HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.



One Piece Long Back Sink
With Double Drainboard.
Made in One Piece

5-Z-1862.	Sink, same as described in every respect with the exception of having a Reil Rim instead of Deep Apron	\$42.50
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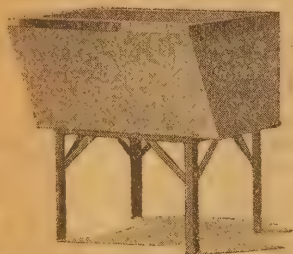
Rugs? Get Your Copy of Our Home Furnishing Book

Composition Stoneware Laundry Tubs

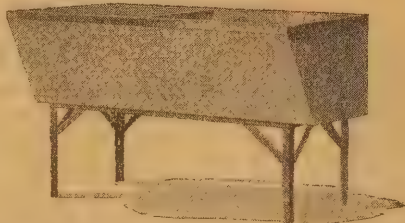
These laundry tubs are smoothly moulded in one solid piece from a composition of Portland cement and crushed granite. All designs with and without backs are made with rounded corners—sanitary and easily kept clean. They are fitted with a rust proof metal top rim to protect them against chipping. Fitted complete with brass strainer, rubber plug and waste connection cast in the tub, which prevents leaky connections supported by painted steel stand. Polished brass $\frac{1}{2}$ in. plain flanged wash tray bibbs are furnished.

*We will furnish $1\frac{1}{2}$ in. lead "S" trap for lead pipe connections for \$1.25 extra
If you wish lead "S" trap fitted for iron pipe connection, add, \$2.00 extra*

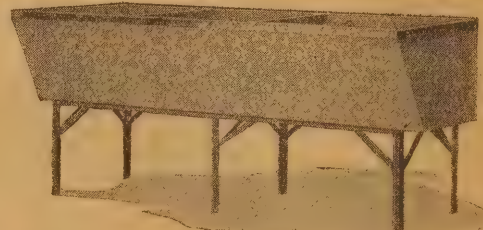
Single Laundry Tub



2 Part Laundry Tub



3 Part Laundry Tub



Single composition laundry tub fitted complete with brass strainer, rubber plug, waste connection and one pair of polished brass $\frac{1}{2}$ in. flanged wash tray bibbs; supported by painted steel stand.

Order No.	Length ins.	Width ins.	Depth ins.	Weight lbs.	Pr.
5-Z-1901	25	24	16	200	\$10.50
5-Z-1902	27	24	16	225	11.50
5-Z-1903	31	24	16	250	12.00

Two-part composition laundry tub fitted complete with brass strainer, rubber plugs, waste connection and two pair of polished brass $\frac{1}{2}$ in. flanged wash tray bibbs; supported by painted steel stand.

Order No.	Length inches	Width inches	Depth inches	Weight pounds	Price
5-Z-1907	48	24	16	400	\$17.00
5-Z-1908	54	24	16	450	18.50
5-Z-1909	60	24	16	475	20.00

Three-part composition laundry tub fitted complete with brass strainers, rubber plugs, waste connections and three pair of polished brass $\frac{1}{2}$ in. flanged wash tray bibbs; supported by painted steel stand.

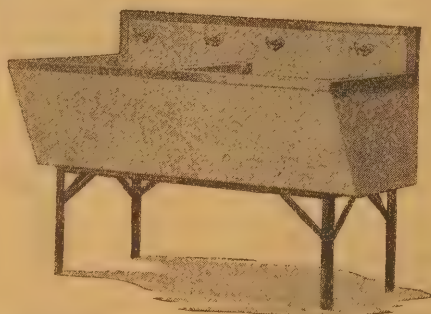
Order No.	Length inches	Width inches	Depth inches	Weight pounds	Price
5-Z-1913	72	24	16	600	\$27.00

Desirable High Back Laundry Tubs

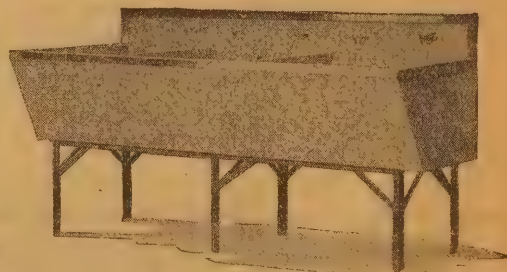
Single Laundry Tub



2 Part Laundry Tub



3 Part Laundry Tub



High back single composition laundry tub, fitted complete with brass strainer, rubber plug, waste connection and one pair of polished brass $\frac{1}{2}$ in. flanged wash tray bibbs; supported by painted steel stand.

Order No.	Length ins.	Width ins.	Depth ins.	Weight lbs.	Pr.
5-Z-1904	25	24	16	225	\$13.00
5-Z-1905	27	24	16	250	14.00
5-Z-1906	31	24	16	275	16.00

High back two-part composition laundry tub fitted complete with brass strainers, rubber plugs, waste connection and two pair of polished brass $\frac{1}{2}$ in. flanged wash tray bibbs; supported by painted steel stand.

Order No.	Length ins.	Width ins.	Depth ins.	Weight lbs.	Price
5-Z-1910	48	24	16	450	\$21.00
5-Z-1911	54	24	16	500	23.00
5-Z-1912	60	24	16	525	24.00

High back three-part composition laundry tub fitted complete with brass strainers, rubber plugs, waste connections and three pair of polished brass $\frac{1}{2}$ in. flanged wash tray bibbs; supported by painted steel stand.

Order No.	Length ins.	Width ins.	Depth ins.	Weight lbs.	Price
5-Z-1916	72	24	16	650	\$35.00

New Process White Laundry Tubs

Made in One Piece of White Composition Stoneware

Here is the most elegant laundry tub ever produced. Our special secret process of manufacture, which is the very latest thing yet brought out in laundry tub construction, gives us an ivory finish tub, presenting clean, sanitary appearance far superior to anything ever before offered in this line.

The accompanying cut shows the design. We can furnish these tubs in both two and three parts. The entire tub is cast in one solid piece with rounded inside corners; no joints or seams to collect grease or dirt.

There is only one waste connection for a two compartment tub, both parts being connected by a special fitting. This saves 50 per cent of the work in connecting; avoids the necessity of two traps. We can furnish these tubs either for iron pipe connections or lead connection. These tubs come in two styles, with 6-inch high and without 6-inch high back.

Fitted Complete These tubs are furnished complete, as shown in illustration, including: The Tub bound with Metal rim, has four 1/2-in. Flange Compression Laundry Faucets, has strong angle steel stand, has a brass strainer and waste connection; in fact, everything complete with the exception of the trap, which we furnish at an additional cost. See below:

PRICES OF TWO PART TUBS AS FOLLOWS:

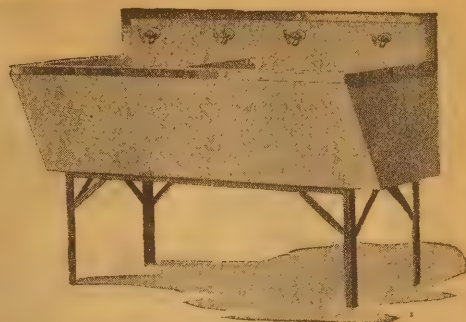
No.	Length	Width	Depth	Price with 6 in. high back	Price without 6 in. high back
5-Z-2031....	48 in.	24 in.	16 in.	\$28.25	\$21.00
5-Z-2033....	54 in.	24 in.	16 in.	30.00	22.85
5-Z-2035....	60 in.	24 in.	16 in.	31.85	24.65

NOTE: We can furnish 1 1/2-inch lead S trap, fitted for lead pipe connections, at an additional charge of..... **\$1.25**

PRICES OF THREE PART TUBS AS FOLLOWS:

No.	Length	Width	Depth	Price with 6 in. high back	Price without 6 in. high back
5-Z-2037....	72 in.	24 in.	16 in.	\$41.00	\$33.40

We can furnish 1 1/2-inch lead S trap, fitted for iron pipe connections, at an additional charge of..... **\$2.00**



Desirable Combination Sink and Laundry Tub

These tubs are made of a special composition of the highest grade of Portland Cement and crushed gravel. They will last a life time, are absolutely indestructible.

They are moulded and made into one solid piece, have round corners, making them perfectly sanitary and easy to keep clean.

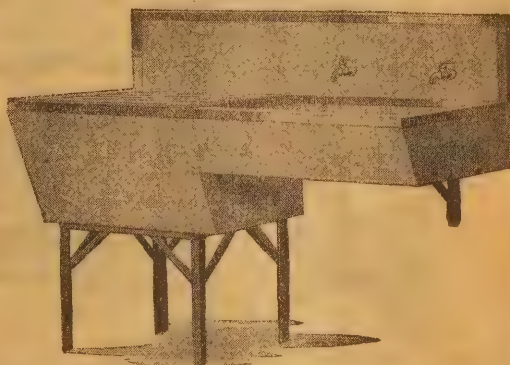
They are furnished complete as shown in illustration. Please bear this in mind when comparing our prices with others. We always furnish goods exactly as shown, leaving out no details or small parts for our customers to buy.

Combination Consists of Laundry Tub, Kitchen Sink, High 14 inch back and hardwood drain board. All bound on edge with patent metallic rim. Has brass strainer and waste connection. Has angle iron stand and sink bracket.

Has four highly polished 1/2 inch Fuller Flange XXX Faucets. Everything complete as shown in illustration, including soap cup:—

All measurements given are outside:—

	5-Z-5001	5-Z-5003	5-Z-5005
Total length.....	48 inches	54 inches	60 inches
Width.....	24 inches	24 inches	24 inches
Depth, tub part.....	16 inches	16 inches	16 inches
Depth, sink part.....	8 inches	8 inches	8 inches
Price, complete as described above..	\$36.25	\$38.25	\$41.25



NOTE: We can furnish 1 1/2-inch lead S trap, fitted for lead pipe connections at an additional charge of..... **\$1.25**

We can furnish 1 1/2-inch lead S trap, fitted for iron pipe connections at an additional charge of..... **\$2.00**

NEAT, STRONG ANGLE STEEL FOLDING STANDS Are Supplied With All Laundry Tubs!

These stands furnished with laundry tubs shown on this and the opposite page, without additional charge.

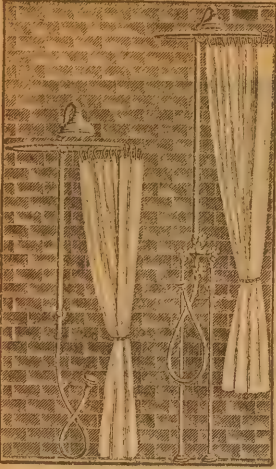


Folds up flat and compactly. Only a few moments needed to set in place permanently.

These latest improved folding laundry tub stands are designed to overcome all of the objectionable features of the old style, clumsy, shaky, cast iron legs. Made to stand solid and rigid of 1 in. angle iron with strong steel angle braces, painted black. Easily set up—unfold or open up—then slip the turn button through the slot and your laundry tub stand is erected forever—a substantial, strong and neat frame.

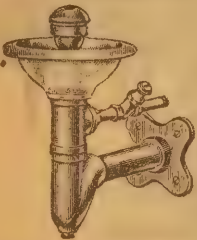
Miscellaneous Plumbing Articles at a Saving

Portable Shower Bath



5-Z-3069. Nickel Plated Portable Shower Bath with Duck Curtain and Rubber Hose with Holdfast Rubber Bulb **\$13.25**
 5-Z-3071. Nickel Plated Brass Shower Bath, with Head Shower and Shampoo Attachment, Rubber Hose and Sprinkler, 1/2" Supply Pipes to floor with check valves, China Indexed Controlling Valves and Duck Curtain..... **\$25.00**

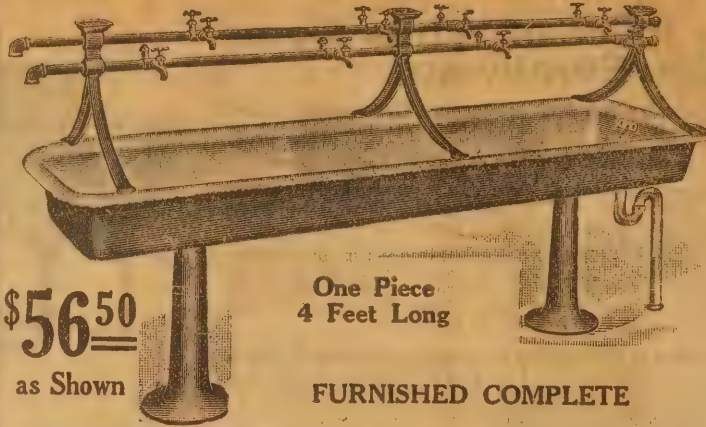
Ajax Bubbling Fountain



This bowl is similar in construction to our Lot No. 5-Z-2510, excepting that the waste and supplies go to the wall instead of to the floor. It is adapted for places where economy of space is desired. It is equipped with nickel plated, self-closing stop with lever handle.

Lot No. 5-Z-2515. Bowl painted outside and enameled inside..... **\$11.25**
 5-Z-2516. Bowl enameled inside and outside..... **\$12.60**

Factory Sinks at Great Savings



\$56⁵⁰
 as Shown

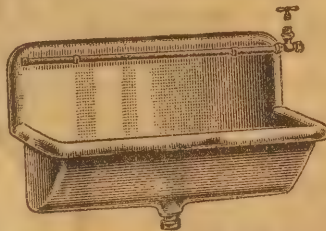
One Piece
 4 Feet Long

FURNISHED COMPLETE

The Wash Sink Illustrated is a very modern low priced Sink. Designed especially for Factory use. It is made in one piece and with roll rim, of the highest grade of cast iron. Enameled inside with White Porcelain and painted outside. Supply pipes for hot and cold water are highly finished and fitted with high grade faucets. Sink is also furnished with brass Nickel Plated "S" Trap to floor with overflow. Furnished in three sizes as listed below:

5-Z-2518. 4 ft. long, complete..... **\$56.50**
 5-Z-2520. 6 ft. long, complete. Weight approximately 400 lbs. Price..... **\$68.40**
 5-Z-2525. 8 ft. long, complete. Weight approximately 525 lbs. Price..... **\$89.00**

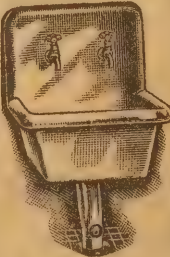
Porcelain Enamel Urinals—Roll Rim \$17.60



Porcelain enameled roll rim urinals, all in one piece. They are supported on concealed wall hangers and have beehive strainer and coupling, and perforated flush pipe with loose key stop.

	Prices
5-Z-1833. Size 24 inches long.....	\$16.60
5-Z-1834. Size 30 inches long.....	\$21.55
5-Z-1835. Size 36 inches long.....	23.65
5-Z-1836. Size 42 inches long.....	29.70
5-Z-1837. Size 48 inches long.....	32.90
5-Z-1838. Size 60 inches long.....	42.00
5-Z-1839. 1 1/4 inch Nickel Plated P Trap.....	2.75
5-Z-1840. 1 1/2 inch Nickel Plated P Trap.....	3.10

Enameled Roll Rim Slop Sinks



Order No. 5-Z-1091. Porcelain enameled roll rim slop sink, with back, all in one piece, on trap standard, with cleanout and waste to wall 12 in. high roll rim back, outlet threaded for 2 in. iron pipe.

Size—16x20x12—Enameled inside only.....	\$24.95
Size—18x22x12—Enameled inside only.....	\$23.90
Size—20x24x12—Enameled inside only.....	\$29.90
Extra for 2—3/4" Nickel Plated Fuller Flange Bibbs.....	4.00

Premier Slop Hopper

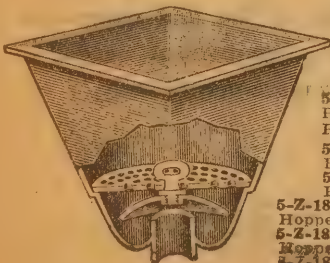
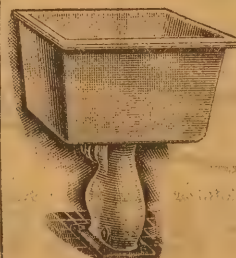


Illustration shows our "Premier" painted and enameled iron Slop Hopper. It is furnished complete as shown and made of the very best material, and made in three sizes.

5-Z-1865. Size 12x12 inches, Painted Hopper. Price.....	\$4.30
5-Z-1866. Size 12x12 inches, Enameled Hopper. Price.....	\$5.35
5-Z-1867. Size 14x14 inches, Painted Hopper. Price.....	\$4.65
5-Z-1868. Size 14x14 inches, Enameled Hopper. Price.....	\$5.80
5-Z-1869. Size 16x16 inches, Painted Hopper. Price.....	\$5.15
5-Z-1870. Size 16x16 inches, Enameled Hopper. Price.....	\$6.30

Enameled Iron Flat Rim Slop Sink



5-Z-1877. Illustration shows our enameled iron flat rim Slop Sinks, which are furnished on the trap standard with clean-out and brass vent connections.

	Prices
Size 16x16x10 inches.....	\$15.95
16x20x12 inches.....	\$17.00
18x22x12 inches.....	19.40
20x22x12 inches.....	20.60
20x24x12 inches.....	22.00

They are shipped from our factory in Southern Wisconsin.

Harris Frost-Proof Closet

\$28⁷⁵



5-Z-1900. Valve action is free and easy, allowing full capacity of tank to flush the bowl unobstructed by interior parts. Separate valves make it easy to adjust and safe and sure from frost and leaks. A slight pressure on the seat operates the valve and gives a full pressure of water to flush the bowl clean. Always clean, sanitary and odorless. Can be put in a very small space. This outfit as illustrated, complete as shown..... **\$28.75**

Hercules Bubbling Fountains



This beautiful, up-to-date, Sanitary Drinking Fountain is a very practical one. It has a trap and waste, eliminating any possibility of sewer gas backing into the fountain. It is very simple in construction and easy to put up, meeting the demands of all. It is similar to our Lot No. 5-Z-2515.
 Lot No. 5-Z-2510. Bowl painted outside and enameled inside..... **\$13.80**
 Bowl enameled outside and inside..... **\$15.25**

Water Heaters!

EXTRA HEAVY GALVANIZED

RANGE BOILERS

These range boilers are tested to 250 lbs. working pressure. They are much heavier and better than our Standard Galvanized Range Boilers and are intended for use with a working pressure of over 150 lbs. They are made of much heavier material than the Standard Boilers and are suited for higher pressures.

Peerless Kitchen Boiler and Water Heater Combined. Is of Absolutely Simple Construction

The heat, generated in the burner, strikes the water spreader or disc and passes directly into the water, causing it to circulate. The disc or spreader is used for the purpose of spreading water; it also prevents the flame from coming in contact with the bottom of the boiler, thus protecting it against the gas flame. In The Peerless we have nothing to conceal.

The cold water is carried to the bottom of the disc through the left hand pipe and comes instantly in contact with the hottest part of the boiler, just above the flame. It is quickly heated and as it is warmed, rises through the center tube to top of boiler.

The heat, after passing around the disc, continues all the way up through the center of boiler.

Lot No.	Lgth.	Diam.	Price, Each
5-Z-5118	3 feet	12 inches.	\$28.00
5-Z-5124	4 feet	12 inches.	\$29.40
5-Z-5130	5 feet	12 inches.	\$31.50
5-Z-5140	5 feet	1 1/2 inches.	\$37.20



STANDARD GALVANIZED RANGE BOILERS

Our Standard Galvanized Range Boilers are guaranteed to be full weight and extra well riveted. They are tested to a working pressure of 150 lbs. before leaving our factory.

Fitted Complete. All boilers are furnished complete with stand, galvanized inside tubes and galvanized malleable iron couplings, threaded for iron pipe connections.

The top boiler tube is screwed into the boiler coupling with a female thread on the inside of coupling and then dropped through one of the openings on the top of the boiler. This tube is for the cold water going into the boiler and the other coupling is for the hot water coming out of the boiler. The bottom opening is a drain and is connected to the lowest connection of the stove or furnace. The side opening is used to connect with the top connection of stove or furnace in order to create a circulation. These boilers cannot be used with an average pressure of over 85 lbs.



Order No.	Cap. Gal.	Ht. in. Boiler	Ht. in. inc. Stand	Weight, Lbs	Boiler only	Price Complete
5-Z-2109	30	60	75	87	\$10.65	\$12.65
5-Z-2113	40	60	75	100	13.45	15.45
5-Z-2115	52	60	75	135	19.50	22.95

We can furnish the above boilers with couplings, threaded for iron pipe connections at 20c above prices quoted.



CAST IRON STANDS FOR RANGE BOILERS

These Stands are made of high grade gray cast iron. They are extra strong and are made to carry an overload far beyond the capacity we list. The height is 15 inches.

Order No.	Diameter Stand.	For Boiler.	Price Each.
5-Z-2117	12-in.	30 gal.	\$0.70
5-Z-2121	14-in.	40 gal.	.90
5-Z-2123	16-in.	52 gal.	2.15



GALVANIZED RANGE BOILER COUPLINGS

These Couplings are made of the best grade Malleable iron, heavily galvanized. Threaded for iron pipe connections.

Lot No. 5-Z-2125. Per set \$1.30

KENNEY NEEDLE SHOWER



bottom of shower turns water into tub or up into shower as you wish. We guarantee every shower. No. 5-Z-225. Tell us style of faucet connection in bath tub. Weight, 4 lbs. Price, complete..... \$6.00

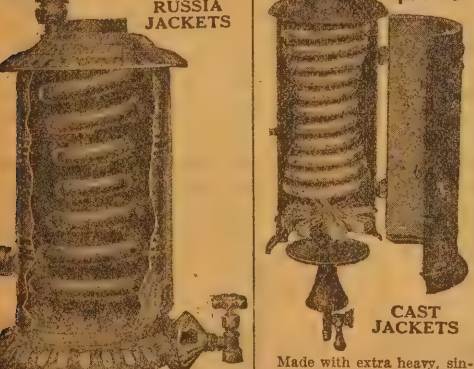


This heater is designed for use over the fire pot of the furnace. It will heat radiators or water supply and will give a constant volume of hot water. They are very good to heat an isolated room where your furnace will not reach. They are very simple to install and are made of very good heavy material.

Order No.	Size No.	Hgt.	Width, In.	Size Pipe	Between Center of Pipe	Sq. Ft. of Rad.	Price
5-Z-2141	0	9	5	1	6 1/2	30	\$ 6.70
5-Z-2143	1	9	8	1 1/4	6 1/2	50	9.60
5-Z-2145	2	10 1/2	10	1 1/2	8 1/2	100	13.45
5-Z-2147	3	12	12	2	...	150	17.25

SANDS COPPER COIL WATER HEATERS

SINGLE COPPER COIL HEATERS



Made with hour glass type coil with heat deflector to expose all surfaces of coil, insuring quick, economical water heating. All castings are fired janned. Heavy steel jacket is asbestos lined. Convenient hinged mica door for lighting. Special whirling type burner. Furnished complete with 2 heavy brass unions.
No. 5-Z-2131. Size 16 in. high, 7 in. in diameter with 3/4 in. coil, 10 1/2 in. long; weight 19 lbs.
Each..... \$6.50
No. 5-Z-2131 1/2. Size 18 in. high, 7 in. in diameter with 3/4 in. tube, 12 1/2 in. long; wt. 20 lbs.
Each..... \$7.25

DOUBLE COPPER COIL HEATERS



Fast heating, efficient double copper coil water heater, designed to meet most exacting requirements. Made with double copper coil. Cast iron jacket of neat design. Hinged door forms half of jacket. All casting fired janned. 3-inch flue connection. 1/2 in. gas supply; 3/4 in. water supply. Thoroughly tested.
No. 5-Z-2134. Size 18 in. high, 7 in. in diameter, 3/4 in. copper tubing, 18 ft. long. Weight 28 lbs.
Each..... \$10.50
No. 5-Z-2136. Size 24 in. high, 8 in. in diameter, with 3/4 in. tube, 25 ft. long. Weight 48 lbs.
Each..... \$15.00

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

We Carry a Complete Line of Bathroom Outfits

Bathroom Fixtures

CONNECTED BATH WASTE AND OVERFLOW



5-Z-3131. Heavily nickel plated. To be connected on the bath tub. This complete fitting costs less than the labor of putting in the old style waste and overflow in connection with bath tub. For lead pipe. Price, each..... **\$2.50**

COMBINATION BATH TRAP & OVERFLOW AND WASTE

The trap is provided with clean-out plug and is perfectly sanitary. Heavily nickel plated. We can furnish this fitting for either iron or lead pipe outlet.

5-Z-3137. Price for lead pipe outlet.... **\$7.25**

5-Z-3137. Price for iron pipe outlet..... **\$7.75**



SAFETY CHAIN



5-Z-5900. Nickel plated safety chain used on plugs, stoppers, closet puller, etc. Price per yard..... **12c**

COCK HOLE COVERS



5-Z-3190. Porcelain Enamelled Cock Hole Covers for bath tubs, sinks and lavatories. Price, each..... **25c**

ONE QUARTER BEND SLIP JOINT CONNECTION



5-Z-3196. Heavily Nickel Plated Brass Slip Joint Connections, size, 1 1/4", by 1 1/4", for use with high closet tanks and wash down bowls. Price, each..... **75c**

OFFSET SLIP JOINT CONNECTIONS



5-Z-3197. Made of brass, nickel plated. Size 2x2 x8 inches. For use with low-down closet tanks and syphon jet bowls. Price, each..... **98c**

SOLDERING BRASS BUSHINGS



5-Z-3198. Soldered to lead pipe to make iron pipe connections. Size 1 1/4". Price..... **25c**
5-Z-3199. Soldered to lead pipe to make iron pipe connections. Size 1 1/4". Price..... **80c**

INDEXED

COMPRESSION COCKS

\$3.75 BATH COCK



Made of red brass. Is highly nickel plated and has china index lever handles. The large chamber at back thoroughly mixes the hot and cold water before leaving nozzle.

5-Z-3104. Price with lead pipe, tall pieces... **\$3.75**

5-Z-3106. Price, with iron pipe, tall pieces..... **\$4.25**

\$1.50 FULLER BASIN COCKS



Cast brass, heavy design, finely nickel plated. Generally sold in pairs, one right and one left hand. We will, however, sell a single cock, but it will be necessary to state when ordering whether right or left hand is required.

5-Z-3110. Price with iron pipe, tall piece, ea. **\$1.50**

\$4.25 FULLER BATH COCKS



No. 4 1/4. Made of heavy cast brass, handsomely nickel plated. Guaranteed to be the best cock on the market.

5-Z-3101. Price with lead pipe, tall piece... **\$4.25**

5-Y-3103. Price with iron pipe, tall piece..... **\$4.35**

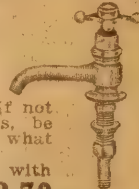
BASIN COCK \$1.25



The most handsome and serviceable heavily nickel plated Basin Cock manufactured. The body and spout are cast solid in one piece. On the top of the handle a white porcelain plate is properly fitted in and marked either "Hot" or "Cold." If not ordered in pairs, be sure and state what index you desire.

5-Z-3125. Price with iron pipe, tall piece, ea. **\$1.25**

SELF CLOSING FAUCET \$2.95



Compression Nickel Plated Self - Closing Faucet with china top marked "Hot" or "Cold." Low-down pattern. If not ordered in pairs, be sure to mention what index is wanted.

5-Z-3122. Price with lead pipe, tall pieces..... **\$2.70**

5-Z-3124. Price with iron pipe, tall pieces... **\$2.95**

COMP'N BATH COCKS \$3.25



Made of heavy cast brass, handsomely nickel plated. Excellent design, best possible to produce.

5-Z-3105. Price with lead pipe, tall piece... **\$3.25**

5-Z-3107. Price with iron pipe, tall piece..... **\$3.50**

FLUSH PIPES



5-Z-3193. Nickel plated Flush Pipes are to be used with high tank closet outfits. They are made of heavy brass tubing, highly nickel plated, and are 1 1/4 inches by 5 1/2 feet long, with 3-inch offset and 1 1/4-inch collar. Price, each..... **\$2.50**

OFFSET SUPPLY PIPE



5-Z-3194. Nickel Plated. These supply pipes are made of 5/8-inch heavy brass tubing, highly nickel plated. To be used with high tank closet outfits. Price, each..... **\$2.35**

BATH OVERFLOW STRAINER WITH RING FOR CHAIN

5-Z-3139. Heavily nickel plated for lead pipe. Price..... **\$1.25**

5-Z-3141. Heavily nickel plated for 1 1/4" iron pipe. Price..... **\$1.50**



WASTE PLUG WITH RUBBER STOPPER



5-Z-3143. Heavily nickel plated for lead pipe. Price..... **\$1.25**

5-Z-3144. Heavily nickel plated for iron pipe. Price..... **\$1.50**

LAVATORY "S" TRAPS

5-Z-3157. 1 1/4-inch nickel plated "S" trap. For lead pipe connection. Price, each... **\$2.50**

5-Z-3158. 1 1/4-inch nickel plated "S" trap. For iron pipe connection. Price, each..... **\$3.25**



STRAIGHT SUPPLY PIPES



5-Z-3167. Nickel plated straight bath supply pipes, made of heavy 1/2-inch tubing, fitted with coupling, threaded to connect with tall pieces on bath cock, complete with floor flanges. Price, per pair... **\$2.00**

5-Z-3173. Plain straight basin supplies made of heavy tubing. Size 3/4 inch, fitted with nickel plated coupling, threaded to fit basin cocks, furnished with nickel plated floor flanges. Price, per pair..... **\$2.00**

BASIN SUPPLY PIPES



5-Z-3171. Nickel plated Basin Supply Pipes to wall, plain, made of heavy 3/4-inch brass tubing, fitted with coupling to fit basin cock, nickel plated flanges. Price, per pair... **\$2.00**

LAVATORY TRAPS

Made of brass tubing. Is heavily nickel plated.



5-Z-3145. 1 1/4-inch nickel plated plain "P" trap. For lead pipe connection. Price, each..... **\$2.25**

5-Z-3146. 1 1/4-inch nickel plated plain "P" trap. For iron pipe connection. Price, each... **\$2.75**

HEAD CLOSET SCREWS AND WASHERS



5-Z-3191. Nickel Plated Heavy Pattern Head Closet Screws and Washers 2 1/4 inches under the head. Price, per set... **15c**

SLIP JOINT CONNECTION

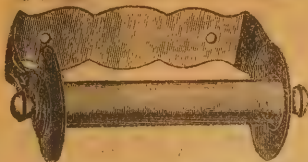


5-Z-3185. These elbows are made of brass and are heavily nickel plated. Sizes 2x4x6 in. to be used with low-down closet tanks and wash-down bowls. Price, each..... **95c**

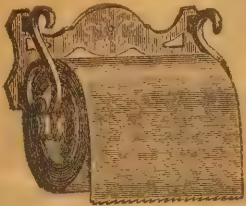
HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

BATHROOM AND TOILET FIXTURES

TOILET PAPER HOLDERS



5-Z-3001. Made of brass, polished and nickel plated, with cherry roller. Price, each..... **60c**



5-Z-3059. Made of cast brass, heavily nickel plated and highly polished. This is a heavy fixture and is well adapted for use with our best bathroom outfits. Price, each..... **65c**



5-Z-3003. Made of brass, heavily nickel plated and highly polished, with ebony roller. Price, each..... **23c**

PLATE GLASS SHELVES.



Brackets are adjustable solid brass, nickel plated, and highly polished. Plate glass shelf is polished and has rounded edges.

5-Z-3027. Size of shelf, 18x5 in. Price..... **\$1.15**

5-Z-3028. Size of shelf, 24x5 in. Price..... **\$1.30**



PLATE GLASS SHELF AND TOWEL BAR COMBINED

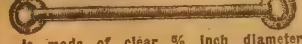
Brackets are made of solid cast brass, heavily nickel plated and polished. The shelf is made of plate glass, polished, with rounded edges. The bar is of solid round glass, 1 inch diameter and can be readily removed.

5-Z-3031. Size of shelf, 18x5 in. Price..... **\$3.70**

5-Z-3032. Size of shelf, 24x5 in. Price..... **\$4.00**

5-Z-3033. Size of shelf, 30x5 in. Price..... **4.25**

GLASS TOWEL BAR



Is made of clear 3/4 inch diameter. Posts are cast brass, heavily nickel plated and complete with screws. Each..... **90c**

5-Z-3061. 15 inches long..... **90c**

5-Z-3062. 18 inches long..... **\$1.00**

5-Z-3063. 24 inches long..... **1.15**

NICKEL PLATED TOWEL BAR



Made of brass tube 1/2 inch diameter, heavily nickel plated, complete with screws. Each..... **58c**

5-Z-3051. 15 inches long..... **60c**

5-Z-3052. 18 inches long..... **65c**

5-Z-3053. 21 inches long..... **70c**

5-Z-3054. 24 inches long..... **75c**

Made of 1/2 inch brass tubing, heavily nickel plated, with cast posts, complete with screws. Each..... **75c**

5-Z-3085. 15 inches long..... **80c**

5-Z-3087. 18 inches long..... **85c**

5-Z-3089. 21 inches long..... **88c**

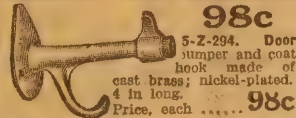
5-Z-3091. 24 inches long..... **86c**

White Enameled Medicine Cabinet

French Plate Mirror \$3.50

This medicine cabinet is designed to match the interior trimming of any room. Plain and neat; heavily coated with pure white enamel. Easy to clean and keep clean. Size over-all 15 1/2 in. high, 11 1/2 in. wide and 4 in. deep. The door is hung on strong hinges and will not sag; fitted with best quality plate mirror size 12 in. high and 8 in. wide.

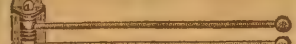
5-Z-308. Price, each..... **\$3.50**



98c

5-Z-294. Door hanger and coat hook made of cast brass; nickel-plated. 4 in. long. Price, each..... **98c**

DOUBLE ARM TOWEL BAR



5-Z-532. Made with two 3/4 in. rods 10 in. long. Price, each..... **95c**

5-Z-533. Made with three 3/4 in. rods 10 in. long. Price, each..... **\$1.15**

BATH OR SHAMPOO SPRAY



Rubber bound, brass, nickel plated spray, 3 inches diameter, with 5 foot pure white rubber tubing, with hold fast rubber bulb.

Lot No. 5-Z-3019. Price, each..... **95c**

BATH SOAP HOLDER



80c

Solid brass, nickel plated, nicely finished and will fit any bath tub. Size 5 1/4 x 4 in. Price, each..... **80c**

Size 5 3/4 x 4 in. Price, each..... **80c**

Size 5 3/4 x 4 in. Price, each..... **80c**

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Size 5 3/4 x 4 in. Price, each..... **80c**



70c

5-Z-291. Water bag hook made of cast brass; nickel-plated, 5 in. long. Price, each..... **70c**



5-Z-131. Comb and brush tray nickel-plated. Size 9 in. by 5 in. Price, each..... **\$1.25**

Size 9 in. by 5 in. Price, each..... **\$1.25**

Size 9 in. by 5 in. Price, each..... **\$1.25**

Size 9 in. by 5 in. Price, each..... **\$1.25**

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Size 9 in. by 5 in. Price, each..... **\$1.25**

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Size 9 in. by 5 in. Price, each..... **\$1.25**

TUMBLER HOLDERS

5-Y-3065. Solid brass, heavily nickel plated and highly polished. Complete with screws. Price, each..... **75c**



TUMBLER AND TOOTH BRUSH HOLDER COMBINED

5-Z-3066. Solid brass, heavily nickel plated and highly polished. Complete with screws. Price, each..... **90c**

TOOTH BRUSH HOLDER



This Holder is made of heavy brass, handsomely nickel plated. Just the thing where more than one in a family. Perfectly sanitary and up to date in every respect.

5-Z-3004. 6 1/4 inches long. Each..... **22c**

5-Z-3006. 8 1/4 inches long. Each..... **29c**

5-Z-3008. 10 1/4 inches long. Each..... **36c**

BATH SEATS



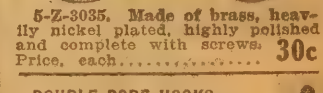
5-Z-3075. The rods are heavily nickel plated, ends are rubber covered to protect bath tub. The seat is of finished oak. Will fit any bath tub. Size 18x6 in. Price, each..... **\$1.00**



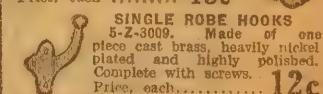
5-Z-3025. Same as above, 5 coat white enamel finish. The handsome Bath Seat made. Price, each..... **\$1.25**



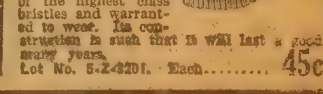
5-Z-3035. Made of brass, heavily nickel plated, highly polished and complete with screws. Price, each..... **30c**



5-Z-3007. Made of one piece of cast brass, heavily nickel plated and highly polished. Furnished complete with screws. Price, each..... **15c**



5-Z-3009. Made of one piece cast brass, heavily nickel plated and highly polished. Complete with screws. Price, each..... **12c**



DETACHABLE HANDLE BATH BRUSH
The ideal thing for your bathroom. Made of the highest class bristles and warranted to wear. The construction is such that it will last a good many years.
Lot No. 5-Z-3201. Each..... **45c**

Lead Pipe



We will furnish this pipe out in lengths you may require. Prices are based on present market conditions. We offer Lead Pipe subject to market changes.

5-Z-2801.
For waste pipe.

Diameter, inch.....	1 1/4	1 1/2	2	4
Weight per foot.....	2 1/2 lb.	3 1/2 lb.	4 1/2 lb.	5 1/2 lb.
Price per foot.....	24c	36c	48c	60c

5-Z-2803. Medium Strong Lead Pipe.

Diameter, inches.....	1/2	3/4	1	1 1/4
Weight per foot.....	1 1/4 lb.	2 1/2 lb.	2 3/4 lb.	3 1/2 lb.
Price per foot.....	15c	24c	27c	



SHEET LEAD

5-Z-2805

Sheets are 24 inches wide.

Thickness, inches.....	1/8	3/16	1/4
Weight per square foot.....	2 lb.	4 lb.	
Price per square foot.....	24c	48c	

IRON TRAPS

Cast Bath

Drum

Cast Sink



5-Z-2811.

Complete with Nickel Plated Covers for Sinks, Laundry Tubs, Bath Tubs, etc., tapped side and bottom, for 1 1/2 in. iron pipe.

1x5x1 1/2 \$1.30

5-Z-1532.

Size, 4x8 in. Tapped both sides for 1 1/2 in. pipe. Shipping weight about 15 1/4 lbs.

Price..\$1.60

5-Z-1537.

Cast iron with brass cleanout plug connected direct to sink with bolts. Tapped for 1 1/2 inch pipe connection. Shpg. wgt. about 4 1/2 lbs.

Price..\$1.00

LEAD DRUM TRAPS

5-Z-2813. Lead drum traps with plain brass trap screw, size 4"x9". Price each \$1.85
5-Z-2815. Lead drum traps with nickel plated brass trap screw, size 4"x9". Price each \$2.05

LEAD BENDS



LEAD BENDS WITH FERRULES

Width 5 1/2 ins. Inlet.

5-Z-2819.

4x12. Each...\$2.00

5-Z-2821.

4x14. Each...\$2.20

5-Z-2825.

4x18. Each...\$2.55

Standard grades.

SHORT BENDS

5-Z-2831.

4x12. Each...\$1.55

LONG BENDS

5-Z-2837.

4x18. Each...\$2.10

CAST IRON CLOSET BENDS



5-Z-2839. Adjustable Flange Closet Bend. Size, 4x16 inches. Tapped both sides for 1 1/2-inch iron pipe. Shipping weight about 10 lbs. Price..\$3.25

BRASS FERRULES

Used in connecting Lead. Waste Pipe to Soil Pipe.

5-Z-2840. 1 1/2" x 2".....Each 33c

5-Z-2841. 2" x 2".....Each 36c

5-Z-2843. 4" x 4".....Each 60c

COMBINATION LEAD AND IRON FERRULES



5-Z-2817.

Length, inches	6	12
1 1/4x2 in. Price, each.....	\$0.40	\$0.60
1 1/2x2 in. Price, each.....	.43	.67
2 in. Price, each.....	.46	.78
4 in. Price, each.....	.85	1.40

PLUMBERS' SPUN OAKUM

Used for calking soil pipe and fittings. Comes in 50-lb. bales.

5-Z-2907. Price per full bale.....\$5.75

5-Z-2908. In less than full bales, per lb.....\$0.12

Standard Lead Traps

SHORT LEAD "S" TRAPS

5-Z-2851. 1 1/4 ins.	Each \$0.53
5-Z-2853. 1 1/2 ins.	.82



SHORT LEAD "S" TRAPS WITH IRON PIPE CONNECTIONS ON OUTLET END

5-Z-2857. 1 1/4 ins. Price, each \$1.15

5-Z-2859. 1 1/2 ins. Price, each 1.50

LONG LEAD "S" TRAPS

5-Z-2863. 1 1/4 ins.	Price each \$0.84
5-Z-2865. 1 1/2 ins.	1.25



LONG LEAD "S" TRAPS

With iron pipe connection on outlet end.

5-Z-2871. 1 1/4 ins. Price, each \$1.45

5-Z-2873. 1 1/2 ins. Price, each \$1.95

HALF "S" OR "P" LEAD TRAPS

5-Z-2879. 1 1/4 ins.	Price Each \$0.46
5-Z-2881. 1 1/2 ins.	.68



HALF "S" OR "P" LEAD TRAPS WITH IRON PIPE CONNECTIONS ON OUTLET END

5-Z-2887. 1 1/4 ins.	Price Each \$1.10
5-Z-2889. 1 1/2 ins.	1.40

PLUMBERS' SOLDER

5-Z-2895. Made of proper proportions of pure block tin and pig lead. Comes in bars weighing about 1 1/2 lbs. each. We sell full bars only. Guaranteed to be the best plumbers' solder on the market. Price per bar.....36c



CALKING LEAD

5-Z-150. Price per lb..10c

RABBITT METAL



We offer rabbit metal of several grades. Intended to be used in bearings of various kinds. The different grades of rabbit that we offer we guarantee to be of the very best composition for the purpose for which they are intended. The metals used are guaranteed to give firmness and have lasting qualities.

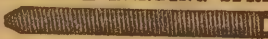
PREMIER RABBITT

5-Z-6503. A special mixture embodying anti-friction ingredients, used on high speed engines or in machines where speed and perfect bearings are required. Price per pound.....\$0.50

NO. 3 RABBITT METAL

5-Z-6507. Used for bearings of all kinds of low speed machinery. Price per pound...\$0.45

LEAD PIPE BENDING SPRINGS



5-Z-2897. Used for bending lead pipe. Made of the best quality of spring steel.

Size, inches.....	1 1/4	1 1/2
Price, each.....	.54c	.63c

RUBBER EXTENSION ELBOWS



5-Z-2901. Used to connect flush pipe with closet bowl, can be applied by anyone. Saves plumber's bills. Adjustable from 3/4 to 5/4 inches from end of coupling to center of elbow.

Size, inches.....	1 1/4	1 1/2
Price, each.....	.40c	

BRASS SOLDERING NIPPLES—USED TO CONNECT LEAD WITH IRON PIPE



Size, inches.....	1/2	3/4	1
Price, each.....	16c	24c	31c
Size, inches.....	1 1/4	1 1/2	2
Price, each.....	.40c	.57c	.80c

BRASS SOLDERING UNIONS—USED TO CONNECT LEAD WITH IRON

5-Z-2905.

Size, inches.....	3/8	1/2	3/4	1
Price, each.....	20c	24c	30c	39c
Size, inches.....	1 1/4	1 1/2	2	
Price, each.....	.50c	.67c	.79c	



GASOLINE BLOW TORCHES

5-Z-2911. Equipped with soldering iron attachment. Made of heavy brass and has non-leakable valves. The safest and best torch on the market. Fully guaranteed.

Capacity 1 pt. Price..\$5.40

Capacity 1 qt. Price.. 6.12



GASOLINE BULB BLAST PLUMBERS' FURNACE

5-Z-2913. Fitted with shield to hold melting pot. This furnace will produce quicker and hotter flame than any other furnace of its kind on the market. Price.....\$6.75

MELTING POT

5-Z-2915. To be used in connection with our Gasoline Bulb Blast Furnace. Price.....48c

MELTING LADLES

5-Z-2917. Size across bowl, inches..... 3 5
Price......36c 72c

TAP BORER

5-Z-2921. Plumbers' tap borer. Price.....24c

CALKING CHISEL

5-Z-2923.

Plumbers' calking chisel, made of special tool steel. Price ea..30c

YARNING IRON

5-Z-2925. Plumbers' yarning iron, made of special tool steel. Price.....30c

BENDING PINS

5-Z-2927. Plumbers' bending pins. Price each.....24c

OVAL SHAVE HOOKS

5-Z-2929. Plumbers' oval shave hook, crucible steel blade. Price each.....24c

TURN PINS

5-Z-2931. Size, Nos..... 1 2 3
Price each.....12c 14c 18c

DRIFT PLUGS

5-Z-2933.

Size, inches.....	1	1 1/4	1 1/2	2
Price each.....	.8c	9c	10c	12c

BOX WOOD DRESSER

5-Z-2935. Plumbers' Box Wood Dresser. Price each.....82c

SOLDERING COPPERS

5-Z-2937. Weight, 1 lb. each. Furnished without handles. Price, each.....70c

5-Z-2939. 2-lb. Soldering Copper. Each.....\$1.40

SOLDERING OUTFIT



A handy outfit for the man who wants to do repair work around the house. For outside work, we suggest that you include one of our blow torches described on this page. Five pieces complete: 1 1-lb. Soldering Copper, with handle; 1 Plumber's Scraper; 1 Bar of Solder, about 1 1/2 lbs.; 1 Coil of Wire Solder, 1 lb.; 1 Piece of Rosin.

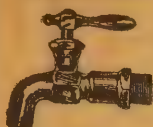
No. 5-Z-4900.....\$2.25

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Our Prices on Bath Room Accessories Can't Be Beat

Faucets, Bibbs and Cocks

Fuller Pattern Plain Bibbs



Threaded
for
Iron Pipe
Nickel
Plated

5-Z-2967.
Size, 1/2 inch..... \$1.00
5-Z-2969.
Size, 3/4 inch..... \$1.18

Fuller Pattern Hose Bibbs



Threaded
for
Iron Pipe
Nickel
Plated

5-Z-2971.
Size, 1/2 inch..... \$1.15
5-Z-2973.
Size, 3/4 inch..... \$1.34

Fuller Pattern Plain Bibbs



With Flange
Threaded for
Iron Pipe
Nickel Plated

5-Z-2975.
Size, 1/2 inch..... \$1.25
5-Z-2977.
Size, 3/4 inch..... \$1.40

Fuller Pattern Hose Bibbs



With Flange
Threaded for
Iron Pipe
Nickel Plated

5-Z-2979.
Size, 1/2 inch..... \$1.35
5-Z-2981.
Size, 3/4 inch..... \$1.65

Compression Hose Bibbs



With Flange
Threaded for
Iron Pipe
Nickel
Plated

5-Z-2959.
Size, 1/2 inch..... \$1.29
5-Z-2961.
Size, 3/4 inch..... \$1.58

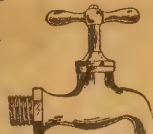
Compression Hose Bibbs



With Flange
Threaded for
Iron Pipe
Nickel
Plated

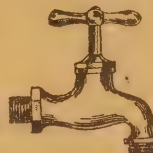
5-Z-2963.
Size, 1/2 inch..... \$1.40
5-Z-2965.
Size, 3/4 inch..... \$1.73

Threaded
for
Iron Pipe
Nickel
Plated



5-Z-2951.
Size, 1/2 inch..... 95c
5-Z-2953.
Size, 3/4 inch..... \$1.20

Threaded
for
Iron Pipe
Nickel
Plated



5-Z-2955.
Size, 1/2 inch..... \$1.10
5-Z-2957.
Size, 3/4 inch..... \$1.35

Fuller Pattern Plain Bibbs

For
Lead Pipe
Connection
Nickel
Plated



5-Z-2983.
Size, 1/2 inch..... \$1.05
5-Z-2985.
Size, 3/4 inch..... \$1.25

Fuller Pattern Hose Bibbs

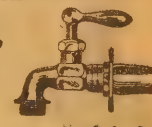


For
Lead Pipe
Connection
Nickel
Plated

5-Z-2987.
Size, 1/2 inch..... \$1.20
5-Z-2989.
Size, 3/4 inch..... \$1.40

Fuller Pattern Hose Bibbs

With Flange
for Lead Pipe
Connection
Nickel
Plated



5-Z-2995.
Size, 1/2 inch..... \$1.65
5-Z-2997.
Size, 3/4 inch..... \$1.90

All Faucets Shown Above Can Be Furnished in Finished Brass at a Reduction of 20c Each

"T" Handle Brass Stop for Iron Pipe

5-Z-3011

Each
Size, 1/2 in... \$0.66
Size, 3/4 in... .92
Size, 1 in... 1.65
Size, 1 1/4 in... 2.80
Size, 1 1/2 in... 4.67



"T" Handle Brass Stop and Waste for Iron Pipe

5-Z-3013.

Each
Size, 1/2 in... \$0.68
Size, 3/4 in... .94
Size, 1 in... 1.69
Size, 1 1/4 in... 2.85
Size, 1 1/2 in... 4.77



Lever Handle Brass Stop for Iron Pipe

5-Z-3019.

Each
Size, 1/2 in... \$0.66
3/4 in... .92
1 in... 1.65
1 1/4 in... 2.80
1 1/2 in... 4.67



Lever Handle Brass Stop and Waste for Iron Pipe

5-Z-3021.

Each
Size, 1/2 in... \$0.68
3/4 in... .94
1 in... 1.69
1 1/4 in... 2.85
1 1/2 in... 4.77



"T" Handle Brass Stops for Lead Pipe

5-Z-3015.

Each
Size, 1/2 in... \$0.73
3/4 in... 1.03
1 in... 1.88



"T" Handle Brass Stop and Waste for Lead Pipe

5-Z-3017.

Each
Size, 1/2 in... \$0.75
3/4 in... 1.05



Lever Handle Brass Stops for Lead Pipe

5-Z-3023.

Each
Size, 1/2 in... \$0.73
3/4 in... 1.03
1 in... 1.88



Lever Handle Brass Stop and Waste for Iron Pipe

5-Z-3025.

Each
Size, 1/2 in... \$0.75
3/4 in... 1.05



Brass Hydrant Cock With Waste for Iron Pipe

5-Z-3027.

Each
Size, 3/4 in... \$1.35
1 in... 1.95
1 1/4 in... 3.10



Plain Laundry Compression Bibb

5-Z-3501.

Polished brass.
For 1/2-inch iron
pipe. Shipping wt.,
about 8 oz.
Price 75c



Low Tank Closet Valves



5-Z-1300. Is that low tank closet leaky? Do you know that water trickling down into the bowl will turn your meter more than 5 cents' worth a day or \$18.00 worth a year? Why not stop it when 20 cents will buy a new valve? It's easily replaced. Just measure the diameter of the old ball, order a new one, unscrew the old valve and put the new one in its place. Valves come in three sizes, all made of pure rubber. Shipping weight, about 6 ounces.
2 in.-inch. Price..... 20c
2 1/4 in.-inch. Price..... 24c
2 1/2 in.-inch. Price..... 30c



Rubber Fuller
Balls

5-Z-1302. Rubber Balls for Fuller bibbs. Sizes for bibbs, 1/2, 3/4. State size wanted and whether for hot or cold water. Shipping weight, 2 balls, about 2 ounces.
Price for 2 balls..... 5c



5-Z-3035.

Each
Size, 3/4 inch..... \$0.85

Boiler Drain Cock



5-Z-2129.
Solid Brass.
Rough Finish
Hose Connection,
for range or
heating
boilers... 700

Compression Sill Cock with Loose Key

5-Z-3500.



Polished with
cast key, ready for
use. Size, 3/4 inch.
Shipping weight,
about 1 lb.
Price..... 90c

Plumber's Friend Force Cups

GUARANTEED RED RUBBER

No. 5-Z-3033. Used to force obstruction from closets, lavatories and sinks. Place the rubber cup over the opening and press down; this will form a suction and remove almost any obstruction, saving a plumber's bill which will easily pay for the force cup many times over. Regular \$1.25 size.
Price, each..... 75c



Hydrant Clamps
21-Z-3029.

Each
Size, 1/2 inch..... 8c
Size, 3/4 inch..... 9c
Size, 1 in... 10c
Size, 1 1/4 in... 11c

INJECTORS AND LUBRICATORS

\$720



5-Z-6002. Has no movable parts in its internal construction. No loose valves, rings or springs to get out of order. Has a great range of work under various conditions. It heats feed water to 200 degrees or more, according to conditions, making it very efficient, and by feeding through a closed "heater," efficiency is unequalled.

No. of Injector.	Size of Pipes, Steam Suction Pipe, and Feed.	Horse Power of Boiler Will Feed.	Gallons per hour 30 lbs. Steam.	Price Each.
1	3/4"	3 to 7	60	\$ 7.20
2	1"	7 to 10	90	8.10
3	1 1/4"	12 to 18	150	9.90
4	1 1/2"	18 to 25	220	11.25
5	1 3/4"	25 to 35	300	13.50
6	2"	35 to 45	400	15.75
7	2 1/4"	45 to 60	500	18.00
8	2 1/2"	60 to 70	600	20.25
9	3"	70 to 90	750	24.75
10	3 1/2"	100 to 125	1000	29.25

Chicago Automatic Injector



5-Z-6008. Simplest automatic injector. Consists of three tubes, a body or shell and one check valve and bushing, held to place by screw thread joints and cannot drop out and become lost. The steam jet and forcing tube may be removed by monkey wrench and cleaned without breaking any pipe joints or removing injector from boiler.

Will start low from 15 to 20 lbs. steam pressure on 4 ft. lift and will work high from 135 to 145 lbs. steam pressure on a 20 to 22 ft. lift with a 60 to 90 lbs. steam pressure. Will work water 120 to 125 degrees hot.

Size.	Pipe Con. Inches.	Cap. per Hour Max.	H. P. based on Ordinary Tub. Boiler.	Price.
No. 00	3/4"	80	4 to 11	\$ 4.50
No. 0	1"	135	10 to 19	5.00
No. 1	1 1/4"	180	15 to 24	5.60
No. 2	1 1/2"	260	18 to 34	7.00
No. 3	1 3/4"	355	20 to 47	8.40
No. 4	2"	475	40 to 64	11.25
No. 5	2 1/4"	600	45 to 80	12.65
No. 6	2 1/2"	800	55 to 106	15.50

Brass Steam Whistles

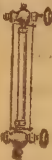
5-Z-6535.



Made of high grade steam metal and furnished complete with spring valves.

Diam. of Bell.	Size of Pipe Connection.	Price.
1	3/4"	\$ 2.65
1 1/4"	1"	3.25
1 1/2"	1 1/4"	3.45
2	1 1/2"	4.70
2 1/4"	1 3/4"	5.75
3	2"	7.25
3 1/2"	2 1/4"	9.75
4	2 1/2"	12.60

Water Gauges



Size.	Glass Inches.	Price Each.
1	3/4"	\$1.15
1 1/4"	1"	1.21
1 1/2"	1 1/4"	1.33
2	1 1/2"	1.37
2 1/4"	1 3/4"	1.44
3	2"	1.58
3 1/2"	2 1/4"	1.60
4	2 1/2"	1.67

Scotch Glass Tubes for Water Gauges

5-Z-9525.

Length, In.	Price Doz. % In.	Price Doz. % In.	Price Doz. % In.
10	\$1.15	\$1.17	\$1.36
11	1.21	1.23	1.50
12	1.33	1.37	1.62
13	1.44	1.48	1.80
14	1.58	1.60	1.94
15	1.67	1.70	2.07



Polished Brass Oil Cups

5-Z-6013. High grade oil cups made of brass nicely polished.

Diam. of Body.	Pipe Size, Inches.	Price Each.
1	3/4"	\$0.25
1 1/4"	1"	.35
1 1/2"	1 1/4"	.50
2	1 1/2"	.75
	2"	1.36

Plain Brass Grease Cups



5-Z-6021.

Size.	Inside Dia., Inches.	Shank Thread.	Grease, Ounces.	Price Each.
00	1/4"	1/8"	1/8"	\$0.35
0	1/2"	1/4"	1/4"	.45
1	3/4"	3/8"	3/8"	.57
2	1"	1/2"	1/2"	.75
3	1 1/4"	5/8"	5/8"	1.10
4	1 1/2"	3/4"	3/4"	1.45

Automatic Grease Cups for Bearings of All Kinds



5-Z-6602.

Size.	Inside Dia., Inches.	Shank Pipe Thread.	Cap. (Grease), Ounces.	Price Each.
00	1/4"	1/8"	1/8"	\$0.90
0	1/2"	1/4"	1/4"	1.17
1	3/4"	3/8"	3/8"	1.47
2	1"	1/2"	1/2"	1.88
3	1 1/4"	5/8"	5/8"	2.50



Sight-feed Snap Lever Glass Oil Cups

5-Z-6601. We wish to call your particular attention to the fact that it is not necessary to adjust the feed each time, it being so constructed that when the desired feed is once set it can be stopped and started at will without resetting. This particular feature will save much trouble and annoyance.

Size	Outside Dia. of Glass	Height of Glass	Capacity, Ounces	Shank Pipe Thread	Brass Finish Price each
0	1 1/4"	1 1/4"	1	1/8"	\$1.35
1	1 1/2"	1 1/2"	1 1/2	1/4"	1.52
2	1 3/4"	1 3/4"	2 1/2	3/8"	1.60
3	2"	2"	4	1/2"	1.70
4	2 1/4"	2 1/4"	6	5/8"	1.92
5	2 1/2"	2 1/2"	10	3/4"	2.35
6	3"	3"		1"	3.35

Steam Gauges



5-Z-0511. Japanned iron case brass ring, complete with cock. They should not be used on traction or portable rigs. Always use a syphon with all steam gauges. These gauges are guaranteed to register accurately up to 200 pounds. Each gauge is packed in a wooden box.

Size dials, inches.	3 1/4"	4 1/4"	5
Price, each.	\$2.70	\$2.75	\$3.25

Rubber Gauge Glass Washers

5-Z-9523.



For	Price per doz.
For 1/2 inch gauge glass.	\$0.15
For 3/4 inch gauge glass.	.38
For 1 inch gauge glass.	.50

Chicago Double Connection Sight Feed Lubricator

FOR STATIONARY ENGINES

5-Z-6011. The condenser valve is a separate piece and not part of the body, thus insuring ease of cleaning and small cost for repairs. It is provided with an ample heating chamber, which insures the oil remaining fluid even when exposed to the most severe weather. The lower feed iron is provided with a drain stem by which the sight glass may be blown out and cleaned without removing from lubricator. Each lubricator is subjected to a rigid test before leaving the factory and guaranteed to work perfectly if connected and operated properly.



Size	For Cylinder	Pipe Thread on Pipe Arm	Brass Finish
1/2 pt.	under 10	1/2 inch	\$ 8.00
1 pt.	10 to 12	1/2 inch	8.20
1 qt.	12 to 18	1/2 inch	10.20
1 gal.	18 to 30	1/2 inch	12.40
	30 and over	1/2 inch	19.00

Standard Lubricator

5-Z-6017. Made of the best steam metal, wood handles, and intended for those who desire a cheap, reliable lubricator.



No.	Diameter, Inches.	Size Thread	Price Each
1	1 1/2"	3/4"	\$1.80
2	1 3/4"	1"	1.90
3	2"	1 1/4"	2.10
4	2 1/4"	1 1/2"	2.30
5	2 1/2"	1 3/4"	2.75
6	3"	2"	3.45

Sight Feed Single Connection Lubricator

5-Z-6013. For stationary and traction engines, steam pumps, air compressors and all classes of steam cylinders.

This lubricator will feed the heaviest oils even when exposed to the severest weather and when once adjusted will feed regularly down to the last drop. The steam can be shut off from all parts of the lubricator and any part be repaired, or valve repacked, without stopping engine or shutting off pressure from steam pipe.



Size	1/4 pt.	1/3 pt.	1/2 pt.	1 pt.	1 qt.
Pipe thread, in.	1/2	1/2	1/2	1/2	1 1/2
Price, each.	\$7.00	\$7.20	\$7.60	\$9.80	\$11.60

Double Connection Sight Feed Lubricator

5-Z-6015. For steam pumps and stationary and portable engines.

This is a medium priced, reliable lubricator for use on steam pumps and stationary engines which are exposed to the cold, and possesses all the advantages and features as contained in the Chicago single connection lubricator of the same style manufactured.



Size	1/4 pt.	1/3 pt.	1/2 pt.	1 pt.	1 qt.
Pipe thread, in.	1/2	1/2	1/2	1/2	1 1/2
Price, each.	\$6.80	\$7.00	\$7.40	\$9.60	\$11.40

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

SOIL PIPE AND FITTINGS

QUARTER BENDS

No. 5-Z-2309. 2 in. Standard26c
No. 5-Z-2311. 2 in. Ex. Hvy.36c
No. 5-Z-2313. 4 in. Standard46c
No. 5-Z-2315. 4 in. Ex. Hvy.55c

QUARTER BENDS—SIDE INLET—RIGHT OR LEFT HAND

No. 5-Z-2317. 4 in. Std.81c
No. 5-Z-2319. 4 in. Ex. Hvy.1.00
Cut shows right side inlet.

QUARTER BENDS—HEEL IN—LET

No. 5-Z-2325. 4 in. Std. 2 in. Inlet81c
No. 5-Z-2327. 4 in. Ex. Hvy. 2 in. Inlet1.00

QUARTER BENDS—DOUBLE HUB

No. 5-Z-2333. 4 in. Standard78c
No. 5-Z-2335. 4 in. Ex. Hvy.91c

LONG QUARTER BENDS

No. 5-Z-2341. 4x18 in. Std.98c

No. 5-Z-2343. 4x18 in. Ex. Hvy.\$1.20

SIXTH BENDS

No. 5-Z-2345. 2 in. Standard26c
No. 5-Z-2347. 2 in. Ex. Hvy.43c
No. 5-Z-2348. 4 in. Standard39c
No. 5-Z-2349. 4 in. Ex. Hvy.49c

EIGHTH BENDS

No. 5-Z-2350. 2 in. Standard22c
No. 5-Z-2351. 2 in. Ex. Hvy.26c
No. 5-Z-2353. 4 in. Standard39c
No. 5-Z-2355. 4 in. Ex. Hvy.49c

"T" BRANCHES

No. 5-Z-2357. 2x2 Standard36c
No. 5-Z-2359. 2x2 Ex. Hvy.43c
No. 5-Z-2360. 4x2 Standard55c
No. 5-Z-2361. 4x2 Ex. Hvy.71c
No. 5-Z-2363. 4x4 Standard65c
No. 5-Z-2365. 4x4 Ex. Hvy.91c

SANITARY "T" BRANCHES

No. 5-Z-2367. 2x2 Standard36c
No. 5-Z-2369. 2x2 Ex. Hvy.43c
No. 5-Z-2371. 4x2 Standard55c
No. 5-Z-2373. 4x2 Ex. Hvy.71c
No. 5-Z-2375. 4x4 Standard75c
No. 5-Z-2377. 4x4 Ex. Hvy.91c

SANITARY "T" BRANCH

With Side Inlet Tapped 1 1/2 in. for Iron Pipe, Right or Left Hand.
No. 5-Z-2379. 4x4 in. tapped 1 1/2 in. Std.\$1.55
No. 5-Z-2381. 4x4 in. tapped 1 1/2 in. Ex. Heavy\$1.70

SANITARY "T" BRANCH WITH SIDE INLET—RIGHT OR LEFT HAND

Cut shows L. H. Inlet.
No. 5-Z-2383. 4x4 with 2 in. Inlet, Std.\$1.20
No. 5-Z-2385. 4x4 with 2 in. Inlet, Ex. Hvy.\$1.40

ADJUSTABLE ROOF FLANGE

Made of Galvanized Iron—will fit any pitch.
No. 5-Z-1089. 2 in.\$1.00
No. 5-Z-1091. 4 in.1.20
No. 5-Z-1091 1/2. 5 in.1.70

Cast Iron Soil Pipe

Every length of Soil Pipe tested and fully guaranteed. Comes in 5-ft. lengths only.

SINGLE HUB SOIL PIPE

No. 5-Z-2301. 2 in. Standard single hub78c
No. 5-Z-2303. 2 in. Ex. Hvy. single hub\$1.00
No. 5-Z-2305. 4 in. Standard single hub\$1.33
No. 5-Z-2307. 4 in. Ex. Hvy. single hub\$2.10

DOUBLE HUB SOIL PIPE

No. 5-Z-2302. 2 in. Standard double hub84c
No. 5-Z-2304. 2 in. Ex. Hvy. double hub\$1.05
No. 5-Z-2306. 4 in. Standard double hub\$1.44
No. 5-Z-2308. 4 in. Ex. Hvy. double hub\$2.20

SIDE OPENING BRANCHES TAPPED FOR IRON PIPE

No. 5-Z-2387. 2x1 1/2 Standard45c
No. 5-Z-2389. 2x1 1/2 Ex. Hvy.55c
No. 5-Z-2391. 2x2 Standard45c
No. 5-Z-2393. 2x2 Ex. Hvy.55c
No. 5-Z-2395. 4x1 1/2 Std.67c
No. 5-Z-2397. 4x1 1/2 Ex. Hvy.81c
No. 5-Z-2399. 4x1 1/2 Standard65c
No. 5-Z-2401. 4x1 1/2 Ex. Hvy.81c
No. 5-Z-2403. 4x2 Standard65c
No. 5-Z-2405. 4x2 Ex. Hvy.81c

SANITARY "T" BRANCH TAPPED FOR IRON PIPE

No. 5-Z-2407. 2x1 1/2 Standard48c
No. 5-Z-2409. 2x1 1/2 Ex. Hvy.59c
No. 5-Z-2411. 2x2 Standard48c
No. 5-Z-2413. 2x2 Ex. Hvy.59c
No. 5-Z-2415. 4x1 1/2 Std.81c
No. 5-Z-2417. 4x1 1/2 Ex. Hvy.\$1.00
No. 5-Z-2419. 4x1 1/2 Std.81c
No. 5-Z-2421. 4x1 1/2 Ex. Hvy.\$1.00
No. 5-Z-2423. 4x2 Std.81c
No. 5-Z-2425. 4x2 Ex. Hvy.\$1.00

"T" BRANCH WITH HAND HOLE FOR CLEAN OUT

No. 5-Z-2431. 4 in. Standard\$1.20
No. 5-Z-2433. 4 in. Ex. Hvy.\$1.50

CROSSES

No. 5-Z-2439. 4 x 4 Standard\$1.17
No. 5-Z-2441. 4 x 4 Ex. Hvy.\$1.40

SANITARY CROSSES

No. 5-Z-2447. 4 x 2 Standard\$1.17
No. 5-Z-2449. 4 x 2 Ex. Hvy.\$1.40
No. 5-Z-2451. 4 x 4 Standard\$1.17
No. 5-Z-2453. 4 x 4 Ex. Hvy.\$1.40

TAPPED CROSSES

Side Opening for Standard Iron Pipe

No. 5-Z-2459. 2x1 1/2 Standard75c
No. 5-Z-2461. 2x1 1/2 Ex. Hvy.91c
No. 5-Z-2463. 2x2 Standard75c
No. 5-Z-2465. 2x2 Extra Heavy91c
No. 5-Z-2471. 4x1 1/2 Std.91c
No. 5-Z-2473. 4x1 1/2 Ex. Hvy.\$1.10
No. 5-Z-2475. 4x2 Std.91c
No. 5-Z-2477. 4x2 Ex. Hvy.\$1.10

SANITARY CROSSES TAPPED FOR STANDARD IRON PIPE

No. 5-Z-2483. 2 x 1 1/2 Standard81c
No. 5-Z-2485. 2 x 1 1/2 Ex. Hvy.\$1.00
No. 5-Z-2487. 2 x 2 Standard81c
No. 5-Z-2489. 2x2 Ex. Hvy.\$1.00
No. 5-Z-2495. 4x1 1/2 Std.\$1.13
No. 5-Z-2497. 4x1 1/2 Ex. Hvy.\$1.40
No. 5-Z-2499. 4x2 Std.\$1.13
No. 5-Z-2501. 4x2 Ex. Hvy.\$1.40

"Y" BRANCHES

No. 5-Z-2502. 2 x 2 Standard36c
No. 5-Z-2503. 2x2 Ex. Hvy.48c
No. 5-Z-2504. 4 x 2 Standard55c
No. 5-Z-2505. 4x2 Ex. Hvy.71c
No. 5-Z-2506. 4x4 Std.75c
No. 5-Z-2507. 4x4 Ex. Hvy.91c

OFF-SETS

No. 5-Z-2539. 2 x 12 Standard75c
No. 5-Z-2541. 2x12 Ex. Hvy.91c
No. 5-Z-2543. 4 x 4 Standard65c
No. 5-Z-2545. 4x4 Ex. Hvy.81c
No. 5-Z-2547. 4x6 Standard71c
No. 5-Z-2549. 4x6 Ex. Hvy.91c
No. 5-Z-2551. 4x8 Standard81c
No. 5-Z-2553. 4x8 Ex. Hvy.\$1.00
No. 5-Z-2557. 4x10 Standard93c
No. 5-Z-2559. 4x10 Ex. Hvy.\$1.20
No. 5-Z-2561. 4x12 Standard\$1.04
No. 5-Z-2563. 4x12 Ex. Hvy.\$1.20

VENTILATING BRANCHES WITH SIDE INLET

No. 5-Z-2569. 4x2 Standard91c
No. 5-Z-2571. 4x2 Ex. Hvy.\$1.20

TAPPED INCREASERS—SMALL OPENING TAPPED FOR STANDARD PIPE

No. 5-Z-2573. 1 1/2 to 4 in. Standard93c
No. 5-Z-2575. 1 1/2 to 4 in. Ex. Hvy.\$1.20
No. 5-Z-2577. 2 to 4 in. Standard93c
No. 5-Z-2579. 2 to 4 inch Ex. Hvy.\$1.20

DOUBLE HUBS

No. 5-Z-2585. 2 inch Standard26c
No. 5-Z-2587. 2 in. Ex. Hvy.29c
No. 5-Z-2589. 4 inch Standard39c
No. 5-Z-2590. 4 in. Ex. Hvy.48c

VENTILATING CAPS

No. 5-Z-2599. 4x6 Standard59c
No. 5-Z-2601. 4x6 Ex. Hvy.71c
No. 5-Z-2603. 4 x 12 Standard\$1.17
No. 5-Z-2605. 4x12 Ex. Hvy.\$1.69

POOF PLATES

No. 5-Z-2607. 4 in. Standard48c
No. 5-Z-2609. 4 in. Ex. Hvy.58c

PIPE RESTS

No. 5-Z-2625. 2 in. Standard19c
No. 5-Z-2627. 2 in. Ex. Hvy.26c
No. 5-Z-2629. 4 in. Standard25c
No. 5-Z-2631. 4 in. Ex. Hvy.29c

REDUCERS

No. 5-Z-2581. 4 to 2 in. Standard26c
No. 5-Z-2583. 4 to 1 in. Ex. Hvy.29c

"S" TRAPS

No. 5-Z-2634. 4 in. Standard95c
No. 5-Z-2635. 4 in. Ex. Hvy.\$1.20

HALF "S" TRAPS

No. 5-Z-2645. 2 in. Standard95c
No. 5-Z-2647. 2 in. Ex. Hvy.71c
No. 5-Z-2649. 4 in. Standard95c
No. 5-Z-2651. 4 in. Ex. Hvy.\$1.20

RUNNING TRAP

No. 5-Z-2657. 4 in. Standard95c
No. 5-Z-2659. 4 in. Ex. Hvy.\$1.20

"S" TRAPS WITH VENT

No. 5-Z-2665. 4 in. with 2 in. vent. Standard\$1.50
No. 5-Z-2667. 4 in. with 2 in. vent. Ex. Hvy.\$1.75

HALF "S" TRAPS WITH VENT

No. 5-Z-2681. 4 in. with 2 in. vent. Std.\$1.50
No. 5-Z-2683. 4 in. with 2 in. vent. Ex. Hvy.\$1.75

"S" TRAPS WITH HAND HOLE AND COVER

No. 5-Z-2689. 4 in. Std.\$1.60
No. 5-Z-2691. 4 in. Ex. Hvy.\$2.00

RUNNING TRAP WITH VENT

No. 5-Z-2693. 2 in. with 2 in. vent. Std.31c
No. 5-Z-2695. 2 in. with 2 in. vent. Ex. Hvy.\$1.00
No. 5-Z-2697. 4 in. with 4 in. vent Std.\$1.50
No. 5-Z-2699. 4 in. with 4 in. vent. Ex. Hvy.\$1.75

HALF "S" TRAPS WITH HAND HOLE AND COVER

No. 5-Z-2713. 4 in. Std.\$1.60
No. 5-Z-2715. 4 in. Ex. Hvy.\$2.00

RUNNING TRAPS WITH HAND HOLE AND COVER

No. 5-Z-2745. 4 in. Std.\$1.60
No. 5-Z-2747. 4 in. Ex. Hvy.\$2.00

LONG INCREASERS FOR CALKING

No. 5-Z-2717. 2 to 4x24 in. long. Standard\$1.60
No. 5-Z-2719. 2 to 4x24 in. long. Ex. Hvy.\$2.00
No. 5-Z-2737. 4 to 5 in. 30 in. long. Standard\$1.95
No. 5-Z-2739. 4 to 5 in. 30 in. long. Ex. Hvy.\$2.40

CLEAN OUT PLUGS

Iron Ferrule with Brass Trap Screw.
No. 5-Z-2759. 2 in.30c
No. 5-Z-2761. 4 in.45c

CAST IRON CESSPOOLS WITH BELL TRAPS

No. 5-Z-2753. 6x960c
No. 5-Z-2755. 9x9\$1.15
No. 5-Z-2757. 12x12\$1.65

Our \$10,000 Plan Book Free. Write Today

SAVING 40% ON WROUGHT PIPE, CASING AND BOILER TUBES

STANDARD IRON PIPE

NEW GAS, WATER AND STEAM PIPE

6-Z-1. This pipe is brand new, fully tested and guaranteed. The very best quality made, and easy to cut and thread when desired. The Size of the Pipe is always determined by its inside diameter. It comes in random lengths ranging from 16 to 21 foot, that is, we sell it only in full lengths just as it comes from the mill and any specifications calling for exact lengths must be charged for, extra. We will, however, fill your order for lengths as nearly as possible according to your requirements. Each length threaded on both ends, fitted with coupling on one end.

The following prices are for full lengths only and where it is ordered in cut or specified lengths there will be an additional charge. No couplings are furnished with pipe cut or ordered in special lengths. Our quotations below are based on latest market prices and are exceedingly low. We cannot make a firm price on pipe, and all quotations made are subject to market changes.

Our prices are for quantities up to 1,000 feet. We solicit special inquiries in large quantities. We will quote freight prepaid prices on application.

ORDER BY LOT No. 6-Z-1

Inside Diameter Inches	Outside Diam. In.	Weight Per Ft. Lbs.	Price Per Ft. Black	Price Per Ft. Galv.
Three-eighths	0.67	0.56	\$0.03½	\$0.05½
One-half	0.84	0.84	.04½	.06
Three-quarters	1.05	1.12	.06	.07
One	1.31	1.67	.08½	.11
One and ¼	1.66	2.24	.11	.14½
One and one-half	1.9	2.68	.13	.17
Two	2.87	3.61	.17½	.23½
Two and one-half	3.87	5.74	.28	.37
Three	4	7.54	.36	.48
Three and one half	4.5	9.00	.57	
Four	5.56	12.49	.66	
Four and one-half	6.62	14.50	.77	
Five		18.76	.90	
Six				

We can furnish all sizes up to 12 in. Write for prices on larger sizes.

PIPE CASINGS

6-Z-7. We have a large quantity of overhauled lap welded wrought casing which is as good as new. The threads are newly cut and each length is fitted with a new coupling. It is not as heavy as standard pipe, but it will stand equally as much and even greater pressure.

This casing can be used for almost any purpose for which standard black pipe is used, and it is especially recommended for water, gas, and oil lines. Owing to the fact that it is lighter than the standard pipe, it has finer threads. Regular casing threads 14 to the inch.

ORDER BY LOT No. 6-Z-7

Inside Diam. Inches	Outside Diam. Inches	Approx. Weight per ft., lbs.	Price per ft.
One and ¼	2	2	\$0.12
Two and ¼	3	3½	.20
Three and ¼	3½	4½	.24
Three and ¾	4	5½	.25
Five and ¾	6	10½	.65

BOILER TUBES FOR RE-TUBING PURPOSES

6-Z-9. We offer below an opportunity to purchase overhauled selected boiler tubes at prices that mean an enormous saving to you. These tubes are carefully inspected before shipment, and we guarantee them absolutely satisfactory for retubing boilers of any kind.

We ship them forward with the understanding that you will be satisfied with them, and give you the privilege, upon inspection, to return them to us, provided you do not find them up to our representations.

We cut these tubes to lengths. They have square ends, are straight, and are practically free from rust and scales.

Outside Diam. In.	Thickness In.	Weight per ft.	Price per ft.
Two	.095	1.92	\$0.10
Two and one-quarter	.095	2.17	.12
Three	.109	3.25	.18
Three and ¼	.120	4.50	.20
Three and one-half	.120	4.82	.22
Four	.134	5.47	.25
Four and one-half	.134	6.17	.30
Six	.166	10.50	.50

Subject to Market Changes.

OVERHAULED IRON PIPES

6-Z-5. For Steam, water, gas, oil, railing and general purposes. This pipe is known as "Rejuvenated" or overhauled pipe, that is, it represents material that comes to us in connection with various contracts we have and before shipment is put through our shops and thoroughly overhauled, bad ends cut off, properly re-threaded where necessary and furnished with good couplings throughout. Each length is therefore complete with threads and couplings, unless instructed to the contrary. We paint this pipe with a combination asphalt and graphite paint before shipment. It can be used for all general purposes. It is straight and free from material defects. It comes in random lengths. Prices named below are based on ordinary requirements ranging up to 1000 feet. On application we will quote freight prepaid prices in ordinary quantities, or if you are in the market for a carload or more of this material, write for special freight prepaid prices.

All pipe sold at the following prices is on the basis of pipe furnished in random lengths and not where ordered in specified lengths. In such cases, we charge extra for cutting. Pipe ordered cut to length is not furnished with couplings.

Our stock of overhauled pipe includes practically every size known. We list, however, only the regular staple sizes and suggest when you are in the market for a large quantity of pipe, or for pipe in very large sizes, that you write us fully as to your requirements. We cannot furnish overhauled pipe in galvanized material. It comes in black only.

ORDER BY LOT No. 6-Z-5

Inside Diameter, Inches	Outside Diam. In.	Weight per ft. Lbs.	Price per ft. Black
Three-eighths	0.67	0.56	\$0.02
One-half	0.84	0.84	.03
Three-quarters	1.05	1.12	.04½
One	1.31	1.67	.06
One and one-quarter	1.66	2.24	.07
One and one-half	1.9	2.68	.08
Two	2.37	3.61	.12
Two and one-half	2.87	5.74	.20
Three	3.5	7.54	.27
Three and one-half	4	9.00	.35
Four	4.5	10.66	.40
Four and one-half	5	12.49	.45
Five	5.56	14.50	.50
Six	6.62	18.76	.60
Seven	7.62	23.27	.95
Eight	8.62	28.18	1.20

Prices on larger sizes on application

SPECIAL OFFERINGS in PIPE

We have on hand at all times, large quantities of Spiral Riveted and Black Steel Pipe in all sizes. If you will kindly send us a list of your requirements, we will be pleased to submit prices.

BOILER TUBES

30,000' of brand new 3" O. D. 2½" I. D.—7 gauge open hearth Allegheny lap weld steel boiler tubes—lengths from 18 to 24' long. Weight about 5.42 lbs. per foot.

MATHESON STEEL LOCK JOINT PIPE

13,000' of 8" O. D.—7½" I. D.—¼" Steel Matheson Joint Pipe, standard bell and spigot joint connections. Length of bell 3½". Lengths from 17 to 21'. Good for pressure up to 50 lbs. Weight about 13 lbs. to the foot.

WELDED STEEL PIPE

400 lengths of new 18" and 30", ½" thick—welded steel pipe, 6' lengths, which could be welded or connected with flanges—suitable for many Industrial Purposes.

SPECIAL

40,000' of 6" Standard Black Pipe, located Camp Shelby, Hattiesburg, Mississippi. This pipe only used during life of the Camp. Is in excellent condition—subject to inspection.

WRITE FOR OUR SPECIAL PRICES

130 For Further Information on Pipes and Tubes, Write Us

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago

Cast Iron Fittings For Standard Wrought Iron Pipe are made of the best grade of material, carefully tapped, inspected before shipment, and guaranteed with uniform and perfect threads, suitable for a working pressure up to 125 lbs.; used on power plants, low pressure steam and hot water plants. In ordering fittings be sure and give the inside measurements of the pipe you will use the fittings with, as all pipe is listed by inside measurement only and fittings correspond. Give figure, number and price when ordering. Sizes not listed, furnished on application.

Size		$\frac{1}{8}$	$\frac{3}{8}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	5	6	8
No. 21-Z-1.	Elbows, Black.....	.06	.08	.10	.16	.20	.28	.50	.75	1.05	1.20	2.00	2.75	6.75
No. 21-Z-2.	Elbows, R. & L., Black.....	.07	.09	.12	.18	.23	.32	.....	.....	.....	.....	.....	.....	.....
No. 21-Z-3.	Tees, Black.....	.09	.12	.15	.23	.29	.41	.73	1.10	1.50	1.75	3.00	4.00	9.75
No. 21-Z-4.	Crosses, Black.....	.16	.22	.27	.42	.53	.75	1.30	2.00	2.70	3.15	5.50	7.25	17.50
No. 21-Z-5.	Plugs, Black.....	.02	.03	.04	.05	.06	.08	.15	.21	.32	.35	.73	1.05	2.28
No. 21-Z-6.	Plugs, Galv.....	.04	.06	.08	.10	.12	.16	.30	.42	.64	.70	1.45	2.10	5.50
No. 21-Z-7.	Bushings, Black.....	.04	.05	.06	.07	.09	.14	.18	.22	.33	.39	.77	1.12	2.50
No. 21-Z-8.	Bushings, Galv.....	.08	.10	.12	.14	.18	.28	.36	.44	.66	.78	1.55	2.25	5.00
No. 21-Z-9.	Caps, Black.....	.....	.....	.....	.....	.....	.40	.54	.75	.87	1.20	1.55	2.85	.....
No. 21-Z-10.	Couplings, R. & L.....	.12	.18	.22	.28	.35	.59	.....	.....	.....	.....	.....	.....	.....
No. 21-Z-11.	Couplings, Black.....	.09	.11	.15	.20	.24	.33	.45	.67	.95	1.19	1.96	2.85	4.75
No. 21-Z-12.	Couplings, Galv.....	.11	.15	.20	.28	.36	.45	.62	.90	1.18	1.57	.....	.....	.....
No. 21-Z-13.	Flange Unions, Black.....	.38	.43	.50	.60	.74	.95	1.19	1.43	1.71	2.00	3.00	3.75	6.65
No. 21-Z-14.	Return Bends, C. P., Black.....	.18	.20	.22	.28	.40	.57	1.23	1.70	.....	.....	.....	.....	.....
No. 21-Z-15.	Return Bends, O. P., Black.....	.25	.30	.40	.55	.80	1.35	2.20	.....	.....	.....	.....	.....	.....
No. 21-Z-16.	Ceiling Plates, Black.....	.10	.15	.16	.18	.22	.35	.42	.62	.....	.....	.....	.....	.....
No. 21-Z-17.	Floor Plates, Black.....	.10	.15	.16	.18	.22	.35	.42	.62	.....	.....	.....	.....	.....
No. 21-Z-18.	Nipples, Short, Black.....	.03	.04	.05	.07	.08	.10	.21	.27	.47	.53	.96	1.15	1.90
No. 21-Z-19.	Nipples, Short, Galv.....	.04	.05	.07	.10	.13	.17	.35	.43	.....	.....	.....	.....	.....
No. 21-Z-20.	Nipples, Long, Black.....	.06	.08	.10	.14	.16	.20	.40	.50	.90	.98	1.70	2.00	2.75
No. 21-Z-21.	Nipples, Long, Galv.....	.09	.10	.14	.19	.25	.32	.66	.80	.....	.....	.....	.....	.....
No. 21-Z-22.	Nipples, R. & L., Black.....	.05	.06	.08	.11	.13	.18	.38	.....	.....	.....	.....	.....	.....
No. 21-Z-23.	Elbows, Reducing.....	.07	.09	.12	.18	.23	.32	.60	.85	1.20	1.40	2.30	3.15	7.75
No. 21-Z-24.	Elbs. 45-Degree.....	.07	.10	.12	.19	.24	.34	.60	.90	1.25	1.45	2.50	3.45	8.50
No. 21-Z-25.	Tees, Reducing, Black.....	.10	.14	.17	.27	.33	.47	.83	1.25	1.75	2.00	3.50	4.60	11.25
No. 21-Z-26.	Crosses, Reducing, Black.....	.18	.25	.30	.46	.60	.83	1.45	2.20	3.00	3.50	6.00	8.00	19.25
No. 21-Z-27.	Reducers, Cast Iron.....	.....	.....	.....	.....	.....	.....	.60	.80	1.00	1.35	2.00	2.70	6.75

For Prices on Cast Iron Galvanized Fittings, double corresponding price in Black.

Malleable Iron Fittings For Standard Wrought Iron Pipe are made of the best grade of malleable iron, great care being used in the selection of material and their manufacture; all fittings are inspected and tested before shipment, guaranteed water, air and gas tight. Give figure, number and price when ordering.

Sizes		$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
No. 21-Z-28.	Elbows, R. H., Black	.03	.05	.06	.07	.09	.15	.20	.33	.76	1.32
No. 21-Z-29.	Fibows, R. & L., Black	.05	.07	.08	.10	.13	.21	.28	.46	1.06	1.75
No. 21-Z-30.	Elbows, R. H., Galv.	.06	.08	.09	.11	.15	.24	.32	.51	.88	1.50
No. 21-Z-31.	Reducing Elbows, Galv.	.05	.06	.08	.12	.15	.20	.29	.46	.82	1.37
No. 21-Z-32.	Elbows, 45-Degree, Galv.	.04	.06	.07	.12	.15	.27	.36	.63	.75	1.11
No. 21-Z-33.	Elbows, 45-Degree, Black	.03	.05	.06	.07	.09	.19	.25	.44	.70	1.30
No. 21-Z-33.	Elbows, Street, Black	.03	.05	.06	.09	.15	.24	.31	.56	.....	.....
No. 21-Z-34.	Elbows, Street, Galv.	.04	.06	.10	.13	.17	.25	.33	.60	.....	.....
No. 21-Z-35.	Elbows, Side Opening, Black	.07	.09	.12	.21	.28	.42	.69	.....	.....	.....
No. 21-Z-37.	Tees, Black	.04	.05	.07	.09	.12	.20	.25	.42	.66	1.12
No. 21-Z-38.	Tees, Galv.	.05	.07	.11	.16	.20	.31	.40	.66	1.05	1.80
No. 21-Z-54.	Tees, Red, Galv.	.04	.06	.12	.17	.22	.32	.40	.65	1.10	1.75
No. 21-Z-39.	Crosses, Black	.04	.06	.09	.14	.21	.28	.35	.62	.87	1.40
No. 21-Z-41.	Reducers, Black	.04	.06	.08	.10	.13	.17	.21	.35	.50	.83
No. 21-Z-42.	Reducers, Galv.	.06	.07	.08	.13	.18	.21	.35	.50	.83	.83
No. 21-Z-43.	Caps, Black	.02	.03	.04	.05	.08	.10	.14	.19	.30	.43
No. 21-Z-44.	Caps, Galv.	.03	.04	.05	.07	.11	.13	.17	.30	.49	.68
No. 21-Z-47.	Return Bends, Open Pattern, Black	.....	.....	.....	.15	.24	.30	.40	.62	1.25	.....
No. 21-Z-45.	Return Bends, Closed Pattern, Black	.....	.....	.....	.15	.22	.27	.33	.49	.....	.....
No. 21-Z-49.	Locknuts, Black	.02	.02	.03	.04	.05	.06	.08	.12	.21	.29
No. 21-Z-50.	Locknuts, Galv.	.03	.04	.05	.06	.09	.12	.18	.32	.45	.68
No. 21-Z-51.	Unions, Black	.18	.20	.22	.27	.33	.46	.58	.75	1.27	2.11
No. 21-Z-52.	Unions, Galv.	.27	.30	.33	.40	.50	.70	.90	1.15	2.26	3.16

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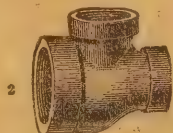
How to Order Reducing Tees and Crosses

Reducing Tees

1st. Always give end or run openings. Then side openings.

Example

1 1/4



Order should read: "2x1 1/2x1 1/4."

Reducing Crosses

Always mention all openings. Reading straight across, then up and down.

Example

1



Order should read: "2x2x1x1."

CAST IRON FLANGE

When ordering cast iron flanges, be sure to mention size of pipe and diameter of flange. We can furnish in three ways: "Not Faced or Drilled," "Faced" and "Faced and Drilled." When ordering be sure to give size, figure number and price. Bolts are extra.

No. 21-Z-201. 2nd. Cast Iron Flange, Faced.

No. 21-Z-202. 3rd. Cast Iron Flange, Faced and Drilled.

Inside Pipe Inch.	Outside Flange Inch.	"Faced."	"Faced and Drilled."	Inside Pipe Inch.	Outside Flange Inch.	"Faced."	"Faced and Drilled."
2	6	\$0.77	\$1.00	4	9	\$1.25	\$1.85
2 1/2	7	0.87	1.12	5	10	1.65	2.10
3	7 1/2	0.97	1.28	6	11	2.05	2.55
3 1/2	8 1/2	1.23	1.60				

See Our Furniture Book for Gas and Electric Fixtures

Cast Iron Black Drainage Fittings. Threaded for Wrought Iron Pipe

NOTICE.—The sizes given for fittings refer to the size of the pipe on which fittings are to be used. Carefully measure the inside of the pipe. NOT the coupling, and order by this size.

90 Degree Drainage Elbow

Size, 1 1/2 inches. Price.....24c
Size, 2 inches. Price.....38c

45 Degree Drainage Elbow

Size, 1 1/2 inches. Price.....24c
Size, 2 inches. Price.....38c

45 Degree Y Drainage

Size, 1 1/2 inches. Price.....44c
Size, 2 inches. Price.....64c



Cross.



Plug.



Reducing Tee.



Flange Union.



Elbow.



Street Elbow.



Lock Nut.



Return Bend Open.



Cap.



Colling Plate.

Cast Iron Fittings For Standard Wrought Iron Pipe are made of the best grade of material, carefully tapped, inspected before shipment, and guaranteed with uniform and perfect threads, suitable for a working pressure up to 125 lbs.; used on power plants, low pressure steam and hot water plants. In ordering fittings be sure and give the inside measurements of the pipe you will use the fittings with, as all pipe is listed by inside measurement only and fittings correspond. Give figure, number and price when ordering. Sizes not listed, furnished on application.

Size		$\frac{1}{8}$	$\frac{3}{8}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	5	6	8
No. 21-Z-1.	Elbows, Black.....	.06	.08	.10	.16	.20	.28	.50	.75	1.05	1.20	2.00	2.75	6.75
No. 21-Z-2.	Elbows, R. & L., Black.....	.07	.09	.12	.18	.23	.32	.....	.....	.....	.....	.....	.....	.....
No. 21-Z-3.	Tees, Black.....	.09	.12	.15	.23	.29	.41	.73	1.10	1.50	1.75	3.00	4.00	9.75
No. 21-Z-4.	Crosses, Black.....	.16	.22	.27	.42	.53	.75	1.30	2.00	2.70	3.15	5.50	7.25	17.50
No. 21-Z-5.	Plugs, Black.....	.02	.03	.04	.05	.06	.08	.15	.21	.32	.35	.73	1.05	2.28
No. 21-Z-6.	Plugs, Galv.....	.04	.06	.08	.10	.12	.16	.30	.42	.64	.70	1.45	2.10	5.50
No. 21-Z-7.	Bushings, Black.....	.04	.05	.06	.07	.09	.14	.18	.22	.33	.39	.77	1.12	2.50
No. 21-Z-8.	Bushings, Galv.....	.08	.10	.12	.14	.18	.28	.36	.44	.66	.78	1.55	2.25	5.00
No. 21-Z-9.	Caps, Black.....	.....	.....	.....	.....	.....	.40	.54	.75	.87	1.20	1.55	2.85	.....
No. 21-Z-10.	Couplings, R. & L.....	.12	.18	.22	.28	.35	.59	.....	.....	.....	.....	.....	.....	.....
No. 21-Z-11.	Couplings, Black.....	.09	.11	.15	.20	.24	.33	.45	.67	.95	1.19	1.96	2.85	4.75
No. 21-Z-12.	Couplings, Galv.....	.11	.15	.20	.28	.36	.45	.62	.90	1.18	1.57	.....	.....	.....
No. 21-Z-13.	Flange Unions, Black.....	.38	.43	.50	.60	.74	.95	1.19	1.43	1.71	2.00	3.00	3.75	6.65
No. 21-Z-14.	Return Bends, C. P., Black.....	.18	.20	.22	.28	.40	.57	1.23	1.70	.....	.....	.....	.....	.....
No. 21-Z-15.	Return Bends, O. P., Black.....	.25	.30	.40	.55	.80	1.35	2.20	.....	.....	.....	.....	.....	.....
No. 21-Z-16.	Ceiling Plates, Black.....	.10	.15	.16	.18	.22	.35	.42	.62	.....	.....	.....	.....	.....
No. 21-Z-17.	Floor Plates, Black.....	.10	.15	.16	.18	.22	.35	.42	.62	.....	.....	.....	.....	.....
No. 21-Z-18.	Nipples, Short, Black.....	.03	.04	.05	.07	.08	.10	.21	.27	.47	.53	.96	1.15	1.90
No. 21-Z-19.	Nipples, Short, Galv.....	.04	.05	.07	.10	.13	.17	.35	.43	.....	.....	.....	.....	.....
No. 21-Z-20.	Nipples, Long, Black.....	.06	.08	.10	.14	.16	.20	.40	.50	.90	.98	1.70	2.00	2.75
No. 21-Z-21.	Nipples, Long, Galv.....	.09	.10	.14	.19	.25	.32	.66	.80	.....	.....	.....	.....	.....
No. 21-Z-22.	Nipples, R. & L., Black.....	.05	.06	.08	.11	.13	.18	.38	.....	.....	.....	.....	.....	.....
No. 21-Z-23.	Elbows, Reducing.....	.07	.09	.12	.18	.23	.32	.60	.85	1.20	1.40	2.30	3.15	7.75
No. 21-Z-24.	Elbs. 45-Degree.....	.07	.10	.12	.19	.24	.34	.60	.90	1.25	1.45	2.50	3.45	8.50
No. 21-Z-25.	Tees, Reducing, Black.....	.10	.14	.17	.27	.33	.47	.83	1.25	1.75	2.00	3.50	4.60	11.25
No. 21-Z-26.	Crosses, Reducing, Black.....	.18	.25	.30	.46	.60	.83	1.45	2.20	3.00	3.50	6.00	8.00	19.25
No. 21-Z-27.	Reducers, Cast Iron.....	.....	.....	.....	.....	.....	.....	.60	.80	1.00	1.35	2.00	2.70	6.75

For Prices on Cast Iron Galvanized Fittings, double corresponding price in Black.

Malleable Iron Fittings For Standard Wrought Iron Pipe are made of the best grade of malleable iron, great care being used in the selection of material and their manufacture; all fittings are inspected and tested before shipment, guaranteed water, air and gas tight. Give figure, number and price when ordering.

Sizes		$\frac{1}{4}$	$\frac{3}{8}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	
No. 21-Z-28.	Elbows, R. H., Black	.03	.05	.06	.07	.09	.15	.20	.33	1.32
No. 21-Z-29.	Fibows, R. & L., Black	.05	.07	.08	.10	.13	.21	.28	.46	1.75
No. 21-Z-30.	Elbows, R. H., Galv.	.06	.08	.09	.11	.15	.24	.32	.51	1.50
No. 21-Z-31.	Reducing Elbows, Galv.	.08	.08	.09	.11	.15	.24	.32	.51	1.50
No. 21-Z-32.	E-bows, 45-Degree, Galv.	.05	.06	.07	.12	.15	.27	.36	.63	1.11
No. 21-Z-32.	Elbows, 45-Degree, Black	.03	.05	.06	.07	.09	.19	.25	.44	.70
No. 21-Z-33.	Elbows, Street, Black	.03	.05	.06	.09	.15	.24	.31	.56	.....
No. 21-Z-34.	Elbows, Street, Galv.	.04	.06	.10	.13	.17	.25	.33	.60	.....
No. 21-Z-35.	Elbows, Side Opening, Black	.07	.09	.12	.21	.28	.42	.69	.....	.....
No. 21-Z-37.	Tees, Black	.04	.05	.07	.09	.12	.20	.25	.42	1.12
No. 21-Z-38.	Tees, Galv.	.05	.07	.11	.16	.20	.31	.40	.66	1.05
No. 21-Z-54.	Tees, Red, Galv.	.04	.06	.12	.17	.22	.32	.40	.65	1.10
No. 21-Z-39.	Crosses, Black	.04	.06	.12	.14	.21	.28	.35	.52	1.75
No. 21-Z-41.	Reducers, Black	.04	.06	.08	.10	.13	.17	.21	.28	1.40
No. 21-Z-42.	Reducers, Galv.	.06	.07	.08	.13	.18	.21	.35	.50	.83
No. 21-Z-43.	Caps, Black	.02	.03	.04	.05	.08	.10	.14	.19	.30
No. 21-Z-44.	Caps, Galv.	.03	.04	.05	.07	.11	.13	.17	.30	.49
No. 21-Z-47.	Return Bends, Open Pattern, Black	.....	.....	.....	.15	.24	.30	.40	.62	1.25
No. 21-Z-45.	Return Bends, Closed Pattern, Black	.....	.....	.....	.15	.22	.27	.33	.49	.....
No. 21-Z-49.	Locknuts, Black	.02	.02	.03	.04	.05	.06	.08	.12	.25
No. 21-Z-50.	Locknuts, Galv.	.03	.04	.05	.06	.09	.13	.18	.22	.45
No. 21-Z-51.	Unions, Black	.18	.20	.22	.27	.33	.46	.58	.75	1.27
No. 21-Z-52.	Unions, Galv.	.27	.30	.33	.40	.50	.70	.90	1.15	2.26

Branch Tees and Manifolds

All openings in branch tees for circulation are tapped right hand. Branch tees for box coils are always tapped left hand in branches and right hand in back opening. Back opening No. 2 Branch Tees are always tapped same size as branch unless otherwise specified. In ordering, please give figure number, size of branch, No. of Branch, and size of run. In No. 2 and 3 manifold the side outlet and back openings are charged as additional front outlet, that is, the price of a No. 2 or No. 3, 4 branch manifold would be charged as a 7 branch manifold.

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FOR CIRCULATION



Fig. 1

FOR CIRCULATION



Fig. 2

OUTLET

FOR BOX COILS



Fig. 3

1 in. Branch Tees 1 in. or 1 1/4 in. run are 1 1/4 in. inside diameter.
1 in. Branch Tees 1 1/2 in. or 2 in. run are 2 1/4 in. inside diameter.
1 1/2 in. Branch Tees are all 2 1/4 in. inside diameter.

1 1/2 in. Branch Tees are all 2 1/4 in. inside diameter.
2 in. Branch Tees are all 3 1/4 in. inside diameter.
Always order Branch Tees by size and figure number.

No. of Branches	1" Branch Tees 2 1/2" C. to C.			1 1/4" Branch Tees 3" C. to C.			1 1/2" Branch Tees 3 1/2" C. to C.			2" Branch Tees 4 1/2" C. to C.		
	Run	Run	Run	Run	Run	Run	Run	Run	Run	Run	Run	Run
2	\$.84	\$.94	\$.108	\$.122	\$.140	\$.182	\$.195	\$.265	\$.332	\$.420	\$.585	\$.785
3	.98	1.08	1.26	1.54	1.77	2.24	2.50	3.20	4.90	5.38	5.85	7.85
4	1.08	1.22	1.50	1.87	2.24	2.65	3.12	3.88	5.38	6.85	7.85	8.65
5	1.26	1.36	1.70	2.24	2.70	3.32	3.74	4.67	7.15	7.95	8.65	10.05
6	1.50	1.63	1.95	2.60	3.09	3.70	4.35	5.38	8.22	9.12	10.05	12.15
7	1.78	2.06	2.23	2.99	3.65	3.92	4.82	6.08	9.50	11.00	12.15	13.10
8	2.05	2.30	2.58	3.36	4.20	4.62	5.47	6.54	10.75	11.90	13.10	14.00
9	2.48	2.70	3.16	4.00	4.91	5.76	6.08	7.70	11.45	12.60	14.00	15.40
10		3.09	3.74	4.48	5.47	6.40	7.10	8.65	12.60	14.00	15.40	
11		4.20	4.43	4.68	5.84	6.78	7.50	9.10				
12		4.45	4.76	4.91	6.08	7.15	7.95	9.80				

When a manifold is required with a larger body than quoted under the above list—or when a large number of coils is required for drying purposes—we are prepared to furnish pipe headers—made from the following sizes of pipe, either new or S. H.: 3 in.—4 in.—5 in.—6 in. We can furnish any quantity of these pipe headers tapped to meet the requirements of any plans you may send us.

Drilling and Tapping Pipe Headers, Either 3 in. or 4 in. Pipe

Size of holes threaded for standard pipe.....	1/2	3/4	1
Price per hole in cents, drilled and threaded.....	10	10	14

Drilling and Tapping Pipe Headers, 5 in.—6 in. Pipe

Size of hole threaded for standard pipe.....	1/2	3/4	1	1 1/4	1 1/2
Price per hole in cents, drilled and threaded.....	12	12	17	20	27

BE SURE TO GIVE CENTER MEASUREMENTS FOR TAPPING AND DRILLING HEADER

SECTIONAL SPRING TUBE EXPANDER

Prossor Type



The Prossor Type Sectional Spring Tube Expander. A heavy, substantial tool, same style as used in boiler shops. Made of the highest grade tool steel for 1/2 inch boiler. In ordering, be sure and give outside diameter of tubes.
Size, in..... 1 1/2 2 3/4 2 1/2 3
Price, each.....\$5.70 \$6.20 \$6.70 \$7.75 \$11.40

EXPANSION FLUE BRUSHES



4-Z-9009. Made of malleable iron and tempered steel. Sizes given are for flues outside diameter.
Size Inches Price Each Size Inches Price Each
1 1/2 \$1.20 2 1/2 \$1.50
1 3/4 1.25 3 1.80
2 1.30 3 1/2 2.10
2 1/4 1.35 4 2.40

ENGINEERS' FAVORITE FLUE SCRAPER



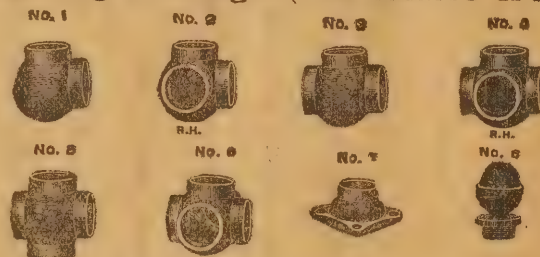
4-Z-9007. Has adjustable screw and good cutting edges that enables the operator to clean flues thoroughly. Sizes given are for tubes outside diameter.

Size Inches	Price Each	Size Inches	Price Each
1 1/2	\$0.67	2 1/2	\$1.15
1 3/4	.76	3	1.35
2	.90	3 1/2	1.55
2 1/4	1.00	4	1.80



4-Z-9006. Bending tool for bending end of boiler tubes. Price, each.....90c

Railing Fittings (Malleable Iron)



21-Z-96. To be used in connection with Standard Pipe for the purpose of constructing fences and enclosures of all kinds.

PLEASE READ WITH CARE:—To construct a railing, two pipes high, the upper outlet of all fittings in the lower rail should be tapped with left hand thread. As fittings used for this purpose do not need to be steam or water tight a sufficiently clean thread to screw up well and make a good job can be made by running a left hand tap into any outlet tapped right hand. Be sure to mention when ordering Right or Left Hand.

Order from figure number above—note illustration.

Sizes, inches	1/2	3/4	1	1 1/4	1 1/2	2
No. 1. Elbow	\$0.07	\$0.09	\$0.14	\$0.22	\$0.29	\$0.53
No. 2. Elbow Side Outlet	.08	.10	.12	.23	.27	.45
No. 3. Tee	.08	.09	.13	.21	.29	.48
No. 4. Tee S. Outlet	.09	.10	.12	.22	.29	.48
No. 5. Cross	.08	.10	.12	.22	.29	.49
No. 6. Cross S. Outlet	.09	.10	.15	.22	.29	.49
No. 7. Floor Flange	.07	.10	.12	.24	.34	.58
No. 8. Acorn Ornaments	.06	.10	.12	.22	.29	.49

DROP FITTINGS IN BLACK AND GALVANIZED



Long Drop Elbow	Short Drop Blk. Gal.	In Drop Tees Blk. Gal.
% Blk. 8c % Gal. 10c	% 4c 6c % 8c 10c % 10c 12c	% 8c 10c % 12c 15c % 16c 24c

CAST IRON FLOOR FLANGES



21-Z-210.
Pipe size, in. % 3/4 1 1 1/4 1 1/2 2
Dia. Flang. in. 3 3 3/4 4 4 1/2 5 4
Price, each.....68c 10c 13c 18c 20c 26c

Cast Iron Hook Plates

No.	For Pipe Spread of		NUMBER OF HOOKS					
	Inch Hooks		2	3	4	5	6	
21-Z-78	1	2 1/2	19c	25c	28c	35c	41c	
21-Z-80	1 1/4	3	23c	28c	35c	43c	57c	
21-Z-81	1 1/2	3 1/2	30c	40c	63c	79c	96c	
21-Z-82	2	4 1/2	47c	71c	99c	185	148	

GALVANIZED GOOSE-NECK HYDRANTS

No. 21-Z-605. A low priced, efficient hydrant, which is made in galvanized pipe only. The gooseneck has a standard hose thread to which the hose can be attached for fire protection purposes, lawn sprinkling, etc. The valve, which is placed below the frost line, is brass, and is so arranged that it will drain the hydrant when shut off, thus preventing freezing. The hydrant is provided with shut-off rod, complete as shown in illustration.

Length, ft.	4	5	6
Size 1/2	\$2.50	\$2.60	\$2.80
1	3.60	3.90	4.20
1 1/2	5.30	5.70	6.00

BOILER TUBE FERRULES

21-Z-9327. Seamless Copper Boiler Tube Ferrules. Used on ends of boiler tubes to make a perfect fit and a tight job. Sizes are for tubes outside diameter.

Sizes	Width, Ins.	Thickness of Copper, Ins.	Price Each
1 1/2	5/8	1-32	\$0.06
2	3/4	1-32	.07
2 1/2	7/8	1-32	.08
3	1	1-32	.09
3 1/2	1 1/8	1-32	.10
4	1 1/4	1-32	.12
	1 1/2	1-32	.16

ROLLER TUBE EXPANDERS

Dudgeon Pattern

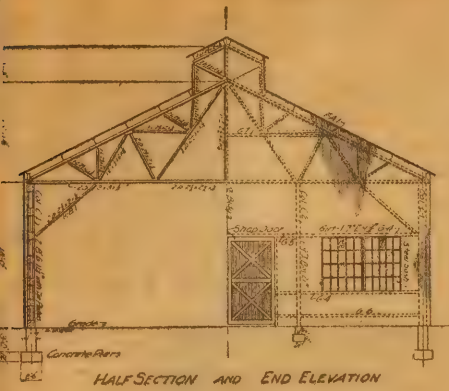


4-Z-9003. This expander has a solid body, thus avoiding constant breaking of cap screws. Made of the best material and finely finished. Sizes given are for outside diameter tubes. If your tube measures 2 inches outside diameter you would then require a 2 inch Expander.

Size Inches	Price Each	Size Inches	Price Each
1 1/2	\$4.70	2 1/2	\$6.50
1 3/4	4.75	3	8.35
2	4.80	3 1/2	10.70
2 1/4	4.85	4	14.00
2 1/2	5.55		

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

STEEL BUILDINGS QUICK!!



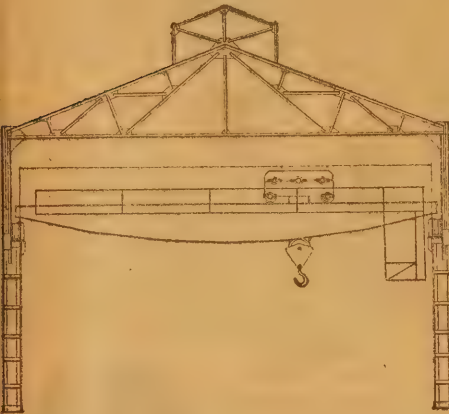
Designed To Your Order From Fabricated Stock Units

We carry in stock at all times fabricated columns, trusses, purlins, girts, framing, etc., which are so designed that they can readily be assembled into a complete building. These sections are all fabricated according to standard practice and we have designed our buildings so that sections are interchangeable and uniform as far as possible. These sections are riveted and are exactly like any other fabricated steel building. We do not use pressed steel shapes.

All Members Are Standard Rolled Structural Sections

We specialize on two types of buildings. One type is illustrated in the upper left hand corner of this page—a clear span mill type building which we can furnish in any length required and with any arrangement of steel sash, doors and with any kind of roof covering or siding.

The other type building we specialize on is designed to mount overhead electric cranes such as illustrated to the left. We can furnish these buildings designed to accommodate any capacity crane at any span desired and in any length required.



Answer These Questions

If you desire a quotation or information concerning this proposition please give us as full information as possible regarding your requirements. In other words, answer the questions below as fully as possible.

- | | |
|-----------------------------|--------------------------------|
| 1—Width of Building. | 6—If Overhead Crane is Desired |
| 2—Length of Building. | Give Span of Crane and Load. |
| 3—Height to Eaves. | 7—State Clearance Desired from |
| 4—Location, Size, Number of | Ground to Crane Rails. |
| Doors and Windows. | 8—State General Purposes of |
| 5—Material Desired for Roof | Building, Etc. |
| and Walls. | |

Now Ready!

2 Buildings 24 ft. wide, 100 ft. long,
12 ft. high.

2 Buildings, 55 ft. wide, 140 ft. long,
15 ft. high to eaves.

1 Building 50 ft. wide, 200 ft. long,
34 ft. high to eaves designed to
carry overhead travelling crane.

1 Building 60 ft. wide, 200 ft. long,
34 ft. high to eaves designed to
carry overhead travelling crane.

1 Building 75 ft. wide, 300 ft. long,
34 ft. high to eaves designed to
carry overhead travelling crane.

Why You Save Time and Money!

By fabricating stock units we are enabled to effect great economies in our shop and in the purchase of our materials. We are also enabled to eliminate engineering expenses. This is the first big reason why our proposition means a saving to you.

We are frank to admit that we use some material which has been in previous use but by doing so we are enabled to reduce the cost of your building.

We guarantee that all members used in the construction of these buildings are so designed that the unit stress will not exceed 16,000 pounds to the square inch (Standard Practice.)

Our proposition eliminates at the start all Architectural and Engineering fees which you would have to pay elsewhere.

We guarantee these buildings to be so designed that they will conform with the building laws of your state as to strength of design.

We ship all materials from one point at one time for your complete building and thereby effect great economies in freight, time and handling charges at your end.

We invite you to come to our plant at any time unannounced to inspect these buildings and other equipment and materials which we have for sale.

We will be glad to make complete estimates of your requirements while you are here and furnish you drawings, etc.

The next best way to get our proposition is to write us your requirements.

Made of Full Weight U. S. STANDARD Gauge Galvanized Steel

LOW PRICES AND GUARANTEE. We quote the lowest prices ever made. **QUALITY.** We use only the best quality of galvanized steel sheets and guarantee full weight U. S. standard gauge No. 20.

HOW MADE. All joints are lock seamed. This style of joint is considered the best possible construction, as there are four thicknesses of metal tightly joined.

COVERS. We can furnish flat covers at 30c per sq. ft. for any tank shown and the size of cover is obtained by multiplying the square of the tank. As an example, on a round tank 4 ft. in diameter a square would be 4x4 or 16 sq. ft. On round end tanks the square is figured by the length and width at longest and widest point.

CAPACITY. The capacity of tanks as shown in barrels is based on 31½ gal. to the bbl. In figuring the round end tanks no allowance has been made for the round corners, so these tanks will not hold quite as rated.

KNOCKED DOWN TANKS. When tanks are shipped knocked down all holes are punched, every part is fitted together at the factory and sufficient solder and rivets are sent to put the tank together.

PIPE CONNECTION. We do not cut pipe connection in steel tanks because it is a difficult matter for anyone to tell before receiving their tanks just where it is best to cut the hole. You can easily cut the hole by using a cold chisel and cut against a block of hard wood.

Our galvanized pipe connections consist of one close nipple, two leather washers, two lock nuts and one pipe cap, so you can close hole when you wish. Shipped from factory with tanks.

Prices as follows:

No. 4-Z-1600.	1 in.	1½ in.	2 in.
Size Each	3 in.	4 in.	5 in.
	\$0.44	\$0.56	\$0.69
		\$0.83	\$1.12

ROUND END GALVANIZED STEEL TANKS



Made of No. 20 gauge galvanized steel guaranteed. Always shipped set up unless otherwise ordered. Sufficiently heavy for ordinary stock watering or storage purposes. Tanks made of No. 18 gauge steel, additional charge of 25%.

BRACING. On tanks 6, 8 and 10 ft. long we furnish one angle brace across the top and two on each side. On larger tanks there are three braces across the top and three on each side.

Prices are F. O. B. Factory, Northern Indiana.

No.	Wdth. Ft.	Ht. Ft.	Lgth. Ft.	Cap'y Bbls.	Wt. Lbs.	Price Each.
4-Z-1831	2	1	4	1½	50	\$5.50
4-Z-1832	2	1	6	2½	80	7.50
4-Z-1833	2	1	8	3½	85	9.50
4-Z-1834	2	2	4	3½	95	7.00
4-Z-1835	2	2	6	5½	90	10.25
4-Z-1836	2	2	8	7½	120	12.25
4-Z-1837	2	2½	8	9½	137	14.00
4-Z-1838	2½	2	8	9½	135	13.00
4-Z-1839	2½	2½	8	12½	150	15.00
4-Z-1840	3	2	8	11½	145	14.00
4-Z-1841	3	2½	8	14	160	16.00
4-Z-1842	4	2	8	15	155	18.00
4-Z-1843	4	2½	8	17	174	20.00
4-Z-1844	4	3	8	23	195	22.00
4-Z-1845	4	3	10	14	165	17.50
4-Z-1846	4	3	12	18	192	20.00
4-Z-1847	4	3	10	21	215	23.75
4-Z-1848	4	4	10	19	205	21.50
4-Z-1849	4	4	12	24	225	24.00
4-Z-1850	4	4	10	28	245	28.50
4-Z-1851	4	4	12	30	315	34.00
4-Z-1852	4	4	16	38	365	38.00
4-Z-1853	5	2	16	38	380	40.00
4-Z-1854	5	2½	16	47	400	45.00

ROUND GALVANIZED STORAGE TANKS

These tanks are shipped knocked down, properly marked to facilitate erection. Every tank is set up at our factory and inspected before shipment. We furnish sufficient solder and rivets. Full instructions also accompany each shipment.

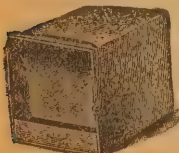


We recommend No. 18 gauge for tanks of 40 bbl. cap. and larger. No. 16 gauge for 100 bbl. tanks and larger.

Prices are F. O. B. factory, Northern Indiana.

No.	Dia. Ft.	Ht. Cap. Ft.	Wt. Lbs.	Price Each.
4-Z-1816	6	6	41 340	\$35.00 \$51.50
4-Z-1817	8	8	54 430	43.00 63.95
4-Z-1818	8	8	60 475	47.50 70.65
4-Z-1819	8	8	72 530	52.50 78.00
4-Z-1820	8	8	95 640	65.00 96.70
4-Z-1821	8	10	120 750	108.60 \$118.00
4-Z-1822	10	8	150 875	151.75
4-Z-1823	10	10	180 970	169.60

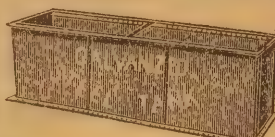
AUTOMATIC POULTRY FOUNTAIN



This fountain is closed tight except a small space near bottom where fowls have access to water. It will not burst by freezing. It retains water in sanitary condition. No danger of chicks drowning. Can be set on a stove.

No. 4-Z-1859. One gallon size. Price...86c
No. 4-Z-1860. Two gallon size. Price...96c

SQUARE END GALVANIZED TANKS



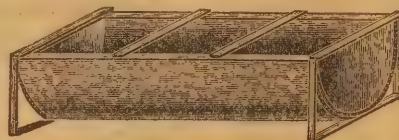
Made of No. 20 gauge galvanized steel guaranteed. Sufficiently heavy for ordinary stock watering or storage purposes.

These tanks made of No. 18 gauge steel at an additional charge of 25%.

Prices are F. O. B. factory, Northern Indiana.

No.	Wdth. Ft.	Ht. Ft.	Lgth. Ft.	Cap'y Bbls.	Wt. Lbs.	Price Each.
4-Z-1863	2	2	4	3½	75	\$8.50
4-Z-1864	2	2	6	5½	105	11.00
4-Z-1865	2	2	8	7½	135	13.00
4-Z-1866	2	2½	8	9½	135	18.00
4-Z-1867	2½	2	8	9½	150	17.50
4-Z-1868	3	2	8	11½	160	18.75
4-Z-1869	2½	2½	8	12	170	19.50
4-Z-1870	3	2	10	14	190	22.00
4-Z-1873	3	2½	10	18	215	24.50
4-Z-1874	4	2	10	19	225	25.75

ROUND BOTTOM GALVANIZED TANKS



No Cross Bars on Tanks less than 10 feet long. Made of 20 gauge, galvanized steel, guaranteed. Furnished with steel frame or truss at each end so it can be set on the ground. Does not have to be bolted to timbers. One cross bar on tanks 10 feet long or over. Prices are F. O. B. cars factory, Northern Indiana.

No.	Wdth. Ft.	Dpth. Ft.	Lgth. Ft.	Cap'y Bbls.	Wt. Lbs.	Price Each.
4-Z-2964	1½	8	10	2	60	\$5.00
4-Z-2967	2	12	8	4	90	8.00
4-Z-2968	1½	14	8	4	90	8.00
4-Z-2966	1½	14	10	5	100	9.00
4-Z-2965	2	12	10	5	100	9.00
4-Z-2963	2	20	8	6	130	12.00
4-Z-2962	2½	18	8	6	130	12.00
4-Z-2961	2	20	10	8	150	14.00
4-Z-2960	2½	18	10	8	130	14.00
4-Z-2972	3	24	8	10	165	16.00
4-Z-2971	3½	22	8	10	165	16.00
4-Z-2970	3	24	10	13	175	17.00
4-Z-2969	3½	22	10	13	175	17.00
4-Z-2974	4	24	8	16	185	16.00

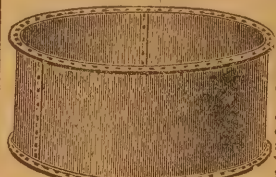
SHEEP AND HOG DIPPING TANK



Prevent contagious diseases for dipping Sheep and Hogs. Placed in ground with top on level with surface. Animals are driven in and out of tank. Made of No. 20 gauge galvanized steel. If made of No. 18 gauge add 25% to price. Always shipped set up. Our design is correct and best made. If you wish special style, send sketch and dimensions for prices. Prices F. O. B. factory, N. Ind.

No.	Ht. Top.	Lth. Btm.	Lth. Wth. Btm.	Wth. Lbs.	Price Each.
4-Z-1895	36"	8'	3'	24"	115 \$13.50
4-Z-1896	36"	8'	4'	36"	128 15.00
4-Z-1897	42"	10'	5'	30"	124 25.00
4-Z-1898	48"	10'	6'	30"	125 28.50

ROUND GALVANIZED STEEL TANKS



Made of No. 20 gauge galvanized steel, guaranteed. Always shipped set up unless otherwise ordered. This gauge of steel is sufficiently heavy in any of the sizes which we offer for these tanks for ordinary stock watering or storage purposes. We can furnish these tanks made of No. 18 gauge steel at 25% higher prices. Prices are F. O. B. cars, factory, Indiana.

watering or storage purposes. We can furnish these tanks made of No. 18 gauge steel at 25% higher prices. Prices are F. O. B. cars, factory, Indiana.

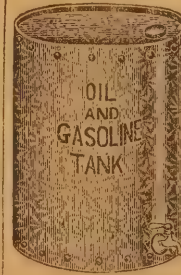
No.	Diam. Ft.	Hght. Ft.	Bbls.	Wt. Lbs.	Price Each.
4-Z-1801	3	2	3½	65	\$8.00
4-Z-1802	4	2	6	90	9.50
4-Z-1803	4	2½	7	100	10.75
4-Z-1804	4	3	9	115	12.75
4-Z-1806	4	4	12	130	16.00
4-Z-1807	5	2½	9½	115	13.00
4-Z-1808	5	3	12	130	14.50
4-Z-1809	5	4	14	140	15.50
4-Z-1810	6	2	14	150	16.00
4-Z-1811	6	2½	17	160	17.50
4-Z-1812	6	3	20	180	20.00
4-Z-1813	6	4	27	210	25.00
4-Z-1814	6	5	34	240	30.00

PREMIER OIL TANKS

These tanks are made of No. 26 gauge galvanized iron, body and bottom, with wood bottom under metal, tin hood, portable and steady stream pump which can be taken out of the tank and used for pumping kerosene from barrels into tank. All tanks are neatly painted and lettered.



No.	Cap. Gal.	Wght. Crated.	Price Each.
4-Z-1970	30	35	\$8.75
4-Z-1971	60	50	10.00
4-Z-1972	110	65	14.00



GASOLINE AND OIL TANKS

Made of No. 20 gauge galvanized steel, is very strong and durable and will stand much hard usage. These tanks are fitted with a screw cap opening in top to fill by and faucet in side near bottom to draw off contents. Prices given below are F. O. B. cars factory, Northern Indiana.

No.	Inside Diam. Inches.	Height. Inches.	Capacity Gallons.	Price Each.
4-Z-1960	18	30	32	\$5.50
4-Z-1961	24	30	38	6.25
4-Z-1962	24	36	70	7.75
4-Z-1963	34	30	117	10.00
4-Z-1964	34	36	140	11.00
4-Z-1965	34	42	165	13.25
4-Z-1966	34	48	185	14.50
4-Z-1967	40	42	225	16.50
4-Z-1968	40	48	260	18.00

Tanks, Feeders, Cookers, Tank Heaters

Farmers Stock Feed Cookers



For cooking feed, heating water, boiling sugar, rendering lard, making soap, scalding. Casing or jacket is made of strong cold-rolled steel, supported at bottom with a heavy wrought iron band, shrunk on and not riveted. The jacket is one continuous sheet of steel. The smoke is thrown around the kettle before it passes into the smoke pipe, bringing the outside of the kettle in direct contact with the fire, enables you to boil fifty gallons of feed from 20 to 30 minutes. Large fire door 12x15 inches. Burns wood from 28 to 36 inches long. Prices quoted are for wood burning cookers. Shipped from warehouses in Southern Michigan or Central Iowa.

Order Number	Actual Cap.	Diam. Inside Flange	Depth Kettle	Weight Lbs.	Less Cover	Cover Extra
4-Z-1991	15	20 in.	13	125	\$14.00	\$1.20
4-Z-1992	20	23 in.	15	145	15.05	1.35
4-Z-1993	30	27 in.	16	185	18.90	1.50
4-Z-1994	45	29 in.	18 1/2	225	20.65	1.65
4-Z-1995	55	32 in.	21	265	22.35	1.85
4-Z-1996	65	34 in.	21	325	23.00	2.05
4-Z-1997	75	36 in.	22	350	28.55	2.25

COAL GRATES FOR FARMERS' STOCK FEED COOKERS
4-Z-1999. Price, each.....\$4.75

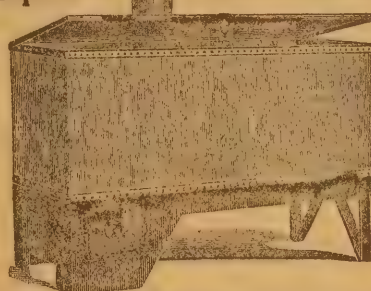
GALVANIZED Hog Feeder



An excellent hog feeder, made of No. 20 gauge galvanized steel, reinforced with heavy angle iron. The construction and design prevents feed waste. Hogs cannot crowd along the trough. Dry feed of any kind will flow down through the container into the trough as fast as it can be eaten. Put in one of these troughs and you will quickly see the advantage of using them only. The feed saved and the health of your hogs will more than pay for your troughs in a surprisingly short time.

4-Z-58—4 ft. long, cap. 11 bus., each..	\$15.50
4-Z-59—6 ft. long, cap. 16 bus., each..	19.50
4-Z-60—8 ft. long, cap. 21 bus., each..	23.50

Improved Feed Cooker



No steam to keep up, no water to freeze. Furnace and fire flue under the boiler is heavy sheet steel. The fire box has a heavy cast iron grate and back wall. The fuel door and opening in ash pit are cast iron. The furnace is made of 14 gauge steel. The boiler or pan is No. 18 gauge steel. Cover is made of No. 20 gauge steel hinged to one side of the boiler and flanged downward, making it steam-retaining. The grate is made especially for coal, wood or cobs. Can be used for boiling sorghum and water. Prices, F. O. B. warehouse in Indiana.

No.	Length, In.	Width, In.	Depth, In.	Weight, Lbs.	Capacity, Gal.	Price.
4-Z-1974..	4	24	12	175	60	\$19.00
4-Z-1975..	4	24	18	200	90	22.25
4-Z-1976..	5	24	18	220	115	24.40
4-Z-1977..	6	28	18	290	160	28.00

Galvanized Steel Wagon Tanks



\$15⁰⁰

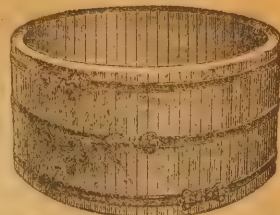
For portable engine, gathering maple sap and hauling liquids, manure, etc. The top or cover is made of galv. steel, the tanks are made of No. 20 gauge galv. steel. Sides and bottoms flanged together, riveted between two strips of 1 1/2 in. metal, the rivets placed only 3 in. apart. The top is fastened to tank by flanging sides and top together and riveted or bolted between 1x3/16 in. metal. The center of top there is a 14 in. round manhole with 3 in. flange extending upward with tight fitting cover. Tank is strongly braced; sizes longer than 6 ft. have one bulkhead in center of tank riveted or bolted to the sides, serves to break force of water and supporting the tank against outward pressure. One inch pipe or hose connection placed close to bottom in rear. Tank is made of 20 gauge galv. steel; can make them up in 18 gauge steel at an additional cost of 25 per cent to the prices below quoted. Prices F. O. B. cars N. Ind.

No.	Width	Height	Length	Capacity	Weight	Price
4-Z-1979...	2 ft.	2 ft.	6 ft.	5½ bbls.	120 lbs.	\$15.00
4-Z-1980...	2 ft.	2 ft.	8 ft.	7½ bbls.	153 lbs.	18.00
4-Z-1981...	2 ft.	2½ ft.	8 ft.	9½ bbls.	168 lbs.	21.00
4-Z-1982...	3 ft.	2 ft.	8 ft.	12 bbls.	191 lbs.	23.00
4-Z-1983...	3 ft.	2 ft.	10 ft.	14 bbls.	236 lbs.	27.00

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Washington Fir Stock and Storage Tanks

Made of strictly clear Washington Fir, with Steel Hoops and Lugs. Size: 1 1/2 in. stock is dressed to about 1 3/8 in. thick and 2 in. stock is about 1 7/8 in. thick. On tanks 8 feet or larger in diameter we recommend that they be made of the 2 in. stock. We ship tanks Knock Down direct from warehouse located in Wisconsin.



Order Number	Diam. Feet	Length of Staves, Feet	No. of Hoops	Capacity Gallons	Weight 1 1/2" Lbs.	Price 1 1/2"	Weight 2" Lbs.	Price 2"
4-Z-2001....	4	2	2	138	200	\$13.90	260	\$16.25
4-Z-2003....	4	4	3	277	300	19.60	390	24.30
4-Z-2005....	5	2	2	221	225	15.90	263	20.25
4-Z-2007....	5	5	4	575	550	30.75	715	39.50
4-Z-2009....	6	2	2	324	300	19.80	390	25.30
4-Z-2013....	7	2	2	416	400	25.80	520	30.35
4-Z-2017....	8	2	2	588	455	27.75	591	35.40
4-Z-2021....	10	2	2	921	800	41.25	750	47.25
4-Z-2025....	6	6	5	1100	695	41.90	1913	53.50
4-Z-2029....	6	6	5	1490	...	...	1170	74.45
4-Z-2033....	8	6	4	1950	...	...	1267	71.80
4-Z-2037....	8	8	5	2700	...	...	1495	99.25
4-Z-2041....	10	10	7	5100	...	...	1787	156.00

Tank Heater

(Self-Sinking)

\$9⁸⁰

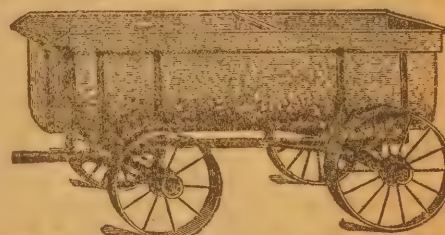


Made of cast iron in one piece. 12 in. wide, 2 ft. high. Heater will sink itself and remain in place. Needs no rods to hold it down. Can be used in galvanized, cement, wood or any other kind of tank. Equipped with grate and ash tray, 2 ft. of smoke stack with damper and hood. Burns cobs, wood or coal.

4-Z-1985. Price.....\$9.80

Steel Thresher Tanks

Made of 20 gauge galv. steel, but can make them up in 18 gauge steel at an additional cost of 25 per cent to prices given below. Made with truss support to support contents on a farm wagon bolster. The seams are all soldered inside of tank. Truss support is made of heavy angle iron and in a manner which places the strength at points where most needed. Back of the partition is a 14 inch round manhole with a flange 5 inches high and a tight fitting cover. Across the top of the tank at rear side of manhole is a plank bolted at each end to attach tank pump for filling tank. In the bottom between the front and rear truss we place a 1-inch connection for feed pipe or hose to the engine. The slush board is bolted or riveted to a fastening provided inside of the tank to the side walls, serving to support tank against outward pressure. Our bulkheads are stationary. These tanks will fit any old farm wagon bolster, narrow or wide track. For wide track, or 42 inch bolster we bolt a 2x4 piece of wood on each side of truss, front and rear, which makes a close fit.



No.	Length	Width	Height	Capacity	Weight	Price
4-Z-1987.... 8 ft.	8 ft.	24 in.	24 in.	12 bbls.	250 lbs.	\$26.00
4-Z-1988.... 10 ft.	10 ft.	24 in.	24 in.	15 bbls.	275 lbs.	41.00
4-Z-1989.... 10 ft.	10 ft.	28 in.	28 in.	15 bbls.	400 lbs.	48.55

Big Values in Gasoline Engines. See them!!

THE WIND IS THE ONLY
FREE POWER. WHY
DON'T YOU USE IT?
NO EXPENSE; NO BOTHER

AT OUR LOW PRICES
FOR MILLS AND TOWERS
IT WILL PAY YOU TO
USE WIND POWER TOO

PREMIER WINDMILLS BALL-BEARING BACK GEARED

The cut in the center shows you a Premier back geared mill as it is shipped complete. The slats or fans are extra heavy, hard spring sheet steel. The arms and rims are made of high grade round edge tire steel. The rudder is sheet steel bound with 1/4-inch round iron. Absolutely cannot bend or break. All parts of this mill are thoroughly coated by the hot process with a heavy coating of Virgin ore spelter. There is no chance for rust around the bolt holes or the joints. Every casting is made from the highest grade new iron. The shafts are cold rolled steel. All bearings not referred to as being ball bearings are babbitted with the best grade anti-friction babbitt. The automatic friction brake is positive and simple. The stroke is adjustable. There are no fragile springs or weak parts. This wind mill is guaranteed by us to be the strongest and highest grade wind mill obtainable at any price.



Price on Galvanized Mills and Towers Subject to Change.

Adapted for Heavy Work

Guaranteed Easy Running Noiseless Powerful

STRONGEST AND HIGHEST GRADE WINDMILL MANUFACTURED

THEY ARE STRONGER THAN THE WIND. READ WHY:

All Premier mills are complete with bed plate, truing spider and reeving gear to put on tower to disconnected gear, also a wood pump rod and pull out wire. They are equipped with chilled steel ball bearings on the main shaft between the main casting, the wheel, and bed plate. For this reason they are the lightest running mills made. A slight breeze will start them and a heavy gale will not make them rattle or noisy. These back geared mills have a small and large cog gear so that they are extra well adapted for heavy work such as pumping water from deep wells or pumping to a tank in a tower.

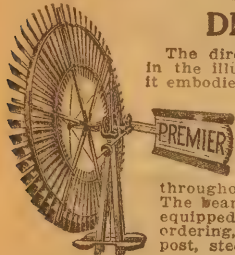
Lot 4-Z-1701. 6-ft. back geared, galvanized steel mill. Weight 290 lbs.	Price	\$33.35
Lot 4-Z-1703. 8-ft. back geared, galvanized steel mill. Weight 425 lbs.	Price	\$44.50
Lot 4-Z-1705. 10-ft. back geared, galvanized steel mill. Weight 525 lbs.	Price	\$64.00
Lot 4-Z-1707. 12-ft. back geared, galvanized steel mill. Weight 890 lbs.	Price	\$100.00

Shipped from Factory Near Chicago

DIRECT STROKE WOOD MILL

The direct stroke windmill is furnished with a side rudder as in the illustration. Aside from being lighter and made of wood it embodies all the principles of light running, noiseless windmills.

The slats in both the mill and rudder are yellow poplar. Wheel arms are tough second growth ash and rims are high grade bending oak. All of these parts have two coats of white lead except the arms, which are blue. Pitmans have babbitted bearings throughout. It is very simple in construction and strongly built. The bearings on the main shaft are adjustable. These mills are equipped with governor weight and are self-governing. In ordering, state the kind of tower to be used, whether for 3 or 4-post, steel or wood.



Lot 4-Z-1781. 8-ft. direct stroke, wood mill. Weight, 380 pounds.	Price	\$42.00
Lot 4-Z-1783. 10 ft. direct stroke, wood mill. Weight, 485 pounds.	Price	\$50.65
Lot 4-Z-1785. 12-ft. direct stroke, wood mill. Weight, 725 pounds.	Price	\$71.35

PREMIER DIRECT STROKE GALVANIZED STEEL PUMPING MILL



THIS IS POSITIVELY the simplest in construction and best in working principles of any mill made. The connection is direct and no lost motion can occur. **EVERY REVOLUTION** of the wheel makes a stroke of the pump, which is very desirable

where small cylinders are used and a good supply of water is desired. **THEY PUMP RAPIDLY**, are easy to set up, have few parts and do not get out of repair. All are ball bearing at both the thrust and bed plate. Wrist pins made of steel and have lock nuts to prevent them working out. Pitmans have removable babbitt bearings in each end. For a complete description of the wheel, wheel arms, rudder and rudder stem, read description under back geared mill. The only difference being in the curvature of the fans. Back geared wheels run faster than direct stroke, and cannot be used on direct stroke mills.

All Premier Mills Are Self Regulating. All bolts on the steel mills are galvanized and double nutted; the second nut acting as a lock-nut to prevent the other from working off. For simplicity and durability, try our Direct Stroke Mill. Always state what kind of a tower you will use.

4-Z-1777. 8-ft. Direct Stroke, Galv. Steel Mill. Wt., 405 lbs.	Price	\$42.70
4-Z-1774. 10-ft. Direct Stroke, Galv. Steel Mill. Wt., 520 lbs.	Price	\$54.00
4-Z-1781. 12-ft. Direct Stroke, Galv. Steel Mill. Wt., 855 lbs.	Price	\$73.35

The above price does NOT include a side rudder.

PREMIER WINDMILL TOWER

Our Premier galvanized windmill towers are so well known throughout the length and breadth of this country that they need no introduction. Read the remarkable description of these exceptional bargain priced towers.

THE ANGLE STEEL CORNER POSTS are exceptionally heavy long sections. They are properly sized to suit length of the tower. They are bolted at the bottom to heavy cast-iron anchor plates which rest on the ground or are made to set under the surface if you wish.

ANGLE STEEL BANDS. Angle steel bands which brace the tower at even distances are so graded in weight and thickness that the tower gets the maximum strength and is not top heavy.

THE BRACE RODS are **ROUND IRON**, not twisted wire and are graded proportionately in the different sized towers. They are strengthened by the use of a bracer rod button or clamp where each set of rods cross.

THE PUMP ROD GUIDE AND INTERNAL BRACE. There are 4 rods coming from each corner to the center at each sectional brace. The pump rod works through the casting of the intersecting guides. They serve a double purpose: First, they brace the pump rod; and secondly, securely strengthen the tower, preventing the torsional or twisting strain which breaks down top heavy or improperly constructed steel towers.

THE LADDER is a special safety steel tire sided affair securely bolted all the way up.

THE PLATFORM is strong, and securely bolted to the tower at the correct distance below the wheel.

The galvanizing on these towers is done after every part is complete so that no rust can possibly start. Even the bolts are galvanized.

We do not furnish any part of the mill or mechanism with this tower.

No. 1 Four-Post Galvanized Steel Towers

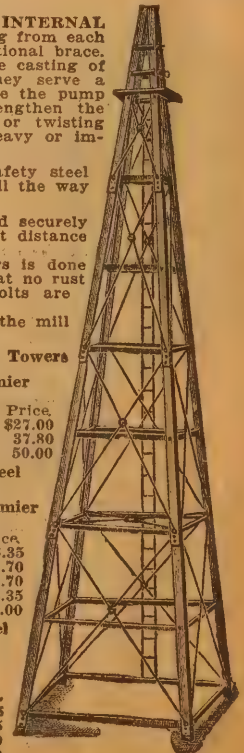
4-Z-1751. For 6 and 8 Foot Premier Windmills			
		Wt. Lbs.	Price
20 ft. No. 1. 4-post.....	335	\$27.00	
30 ft. No. 1. 4-post.....	475	\$37.80	
40 ft. No. 1. 4-post.....	630	\$50.00	

No. 2 Four-Post Galvanized Steel Towers

4-Z-1753. For 8 and 10 Foot Premier Windmills			
		Wt. Lbs.	Price
20 ft. No. 2. 4-post...	375	\$28.35	
30 ft. No. 2. 4-post...	600	\$41.70	
40 ft. No. 2. 4-post...	700	\$55.70	
50 ft. No. 2. 4-post...	900	\$78.35	
60 ft. No. 2. 4-post...	1210	\$101.00	

No. 3 Four-Post Galvanized Steel Towers

4-Z-1755. For 10 and 12 Foot Premier Windmills			
		Wt. Lbs.	Price
20 ft. No. 3. 4-post...	445	\$29.75	
30 ft. No. 3. 4-post...	635	\$43.45	
40 ft. No. 3. 4-post...	800	\$58.00	
50 ft. No. 3. 4-post...	1285	\$82.00	
60 ft. No. 3. 4-post...	1640	\$107.50	



HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

The illustrations below are intended to give you an idea of how we propose to fit up any Pump in our line to suit your well of whatever kind or depth.

Lift Pumps

Will raise water from any depth well when cylinder is set down to within 20 ft. of the water, but will discharge no higher than the spout of the pump.

Force Pumps

Can be fitted for any depth well by placing the cylinder at proper distance from the water and will force water to any desired height or distance from the Pump.

3 Way Force Pumps


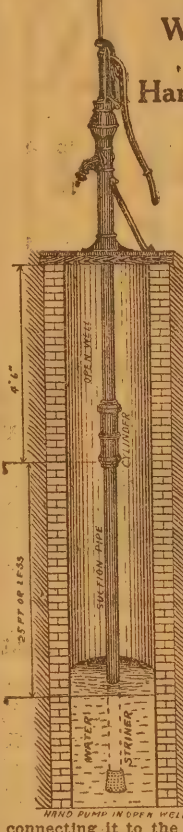
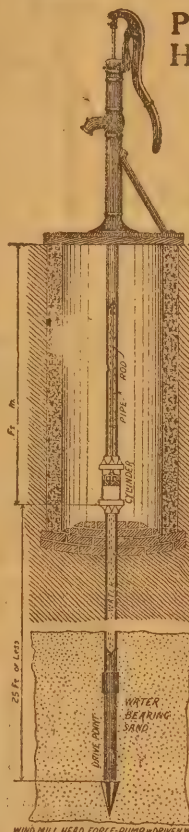
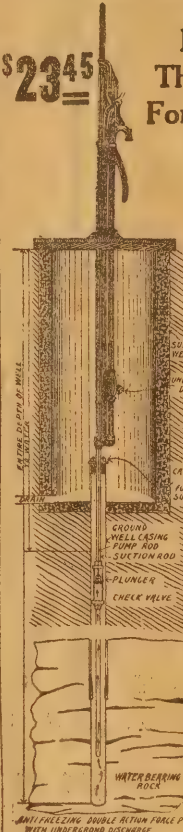
Will discharge water through three way cock under ground through a line of pipe which should be laid below the frost line. The three way cocks or distributing valve is operated by a lever at top of Pump changing the flow of water from the spout of the Pump to the discharge pipe under ground or from the under ground discharge to pump spout instantly while pump is working.

READY MADE PUMP OUTFITS

MADE TO FIT YOUR WELL

Windmill Pumps

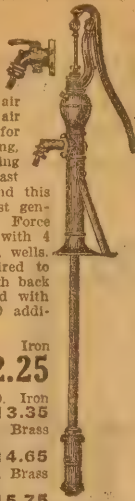
Can also be operated by hand, therefore it is always well to buy a Combined Windmill and Hand Pump if you expect to operate with Windmill, Gasoline Engine or any kind of power in the future. We have arranged these outfits for the convenience of our customers showing our most popular selling Pumps. We however can give you an estimate of any other pump in the following pages, fitted for any size well.

 <p>\$10⁹⁵</p> <p>Premier Standard Pumping Outfit</p> <p>Our Premier Hand Lift Pump Outfits consist of our 4-Z-2267 Hand Lift Pump with 3x10 cylinder and 1 1/2 galvanized pipe. This Pump has a revolving head so that handle can be operated at any angle. Has a large waterway, powerful handle, cast brace tap inside of stand, suitable for the set length as protection from breakage of the cast stand by frost. The cylinders are our very best grade. These outfits are easily installed.</p>	 <p>\$19⁹⁵</p> <p>Windmill and Hand Force Outfit</p> <p>In this outfit we offer you our best seller of a above ground Force Pumps. 4-Z-2305 Pumps built heavy and strong. The back outlet is tapped for 1" or 1 1/2" Pipe, has a brass stuffing box, solid piston rod, revolving head. Intended for connecting with H. Heads: Extra long handles. Water can be drawn from spout or pumped into tank at any distance from the Pump by adding the required amount of Pipe connecting it to the back outlet of the Pump. The spout is fitted for a 3/4" hose. May be used in dug wells at 100 ft. if desired, by lowering the cylinder within 15 ft. of water. Cannot be used in driven wells more than 25 ft. deep as cylinder must be within 15 ft. of the water. We cut and thread all pipe, and pump rod furnished. Also all necessary couplings.</p>	 <p>\$15⁰⁰</p> <p>Perfection Hand Lift Pump Outfit</p> <p>This Hand Lift Pump has closed top. Suitable for ordinary open dug, drilled or driving wells. In every case the cylinder must positively be within 20 ft. of the water. This Pump is in great demand and for shallow wells where a large amount of water is required. We furnish this outfit with our 4-Z-2281 Single Acting Lift Pump by pipe for the required depth of well as listed below. 3x10 polished iron cylinder, wire gauge brass jacket well point as shown in illustration. Pump rod sufficient to reach near cylinder, threaded and with necessary couplings. This Pump can be used to a great advantage where you wish to drive or drill a shallow well. It is necessary in all cases to have a sub-well at least 4 1/2 ft. deep in which to place your cylinder. Then you can drill or drive your Pipe for 20 to 25 ft. below this and have a perfectly serviceable well. Prices as quoted below are for outfits arranged this way. In all cases you must put your cylinder within 20 ft. of the water.</p>	 <p>\$23⁴⁵</p> <p>Premier Three Way Force Pump Outfit</p> <p>Note drive or sub-well 4 feet deep which should always be made over a drilled or driven well so that easy access can be had to the cylinder. Casing should be cut within 4 1/2 ft. of the surface. Can be cut out with a cold chisel after sub-well is dug; then be closed water tight with a Sanitary Well Cap or heavy block of wood to prevent any substance from falling into the well. These outfits are furnished with No. 4-Z-2437 Pump, 1 1/2" galvanized pipe, and rod to set the cylinder within 15 ft. of the water. Suction pipe from the bottom of the cylinder down into the water and strainer. Pipe and rods are all cut and threaded with couplings. Will operate with any kind of power, no matter how deep, and deliver water to any distance or height. A 3x10 Brass Tube Cylinder furnished.</p>
<p>4-Z-2101. Pump and outfit complete for 10 ft. well. Weight approximately 85 lbs. Price \$10.95</p> <p>4-Z-2103. Pump and outfit complete for 15 ft. well. Weight approximately 98 lbs. Price \$12.00</p> <p>4-Z-2105. Pump and outfit complete for 20 ft. well. Weight approximately 110 lbs. Price \$14.35</p> <p>4-Z-2107. Pump and outfit complete for 25 ft. well. Weight approximately 120 lbs. Price \$15.35</p> <p>4-Z-2109. Pump and outfit complete for 30 ft. well. Weight approximately 130 lbs. Price \$17.35</p> <p>4-Z-2111. Pump and outfit complete for 40 ft. well. Weight approximately 170 lbs. Price \$20.70</p> <p>4-Z-2113. Pump and outfit complete for 50 ft. well. Weight approximately 190 lbs. Price \$24.35</p>	<p>Complete outfit consisting of Pump, 3x10 cylinder, 1 1/2" galvanized Pipe, Pump Rod and Strainer.</p> <p>4-Z-2121. Pump and complete outfit for 20 ft. well. Weight 135 lbs. Price \$19.95</p> <p>4-Z-2123. Pump and complete outfit for 30 ft. well. Weight 180 lbs. Price \$23.25</p> <p>4-Z-2125. Pump and complete outfit for 40 ft. well. Weight 220 lbs. Price \$26.55</p> <p>4-Z-2127. Pump and complete outfit for 50 ft. well. Weight 250 lbs. Price \$29.00</p> <p>4-Z-2129. Pump and complete outfit for 60 ft. well. Weight 290 lbs. Price \$33.25</p> <p>4-Z-2131. Pump and complete outfit for 75 ft. well. Weight 325 lbs. Price \$39.25</p>	<p>All outfits furnished with 1 1/2" galvanized pipe.</p> <p>4-Z-2153. Pump and complete outfit for 20 ft. well. Weight 100 lbs. Price \$15.00</p> <p>4-Z-2155. Pump and complete outfit for 30 ft. well. Weight 130 lbs. Price \$18.25</p> <p>4-Z-2157. Pump and complete outfit for 40 ft. well. Weight 165 lbs. Price \$22.30</p> <p>4-Z-2159. Pump and complete outfit for 50 ft. well. Weight 190 lbs. Price \$25.60</p>	<p>fits are furnished with No. 4-Z-2437 Pump, 1 1/2" galvanized pipe, and rod to set the cylinder within 15 ft. of the water. Suction pipe from the bottom of the cylinder down into the water and strainer. Pipe and rods are all cut and threaded with couplings. Will operate with any kind of power, no matter how deep, and deliver water to any distance or height. A 3x10 Brass Tube Cylinder furnished.</p> <p>4-Z-2141. Pump and complete outfit for 20 ft. well. Weight about 110 lbs. Price \$23.45</p> <p>4-Z-2143. Pump and complete outfit for 30 ft. well. Weight about 160 lbs. Price \$27.70</p> <p>4-Z-2145. Pump and complete outfit for 40 ft. well. Weight about 200 lbs. Price \$31.00</p> <p>4-Z-2147. Pump and complete outfit for 50 ft. well. Weight about 230 lbs. Price \$34.50</p> <p>4-Z-2149. Pump and complete outfit for 60 ft. well. Weight about 280 lbs. Price \$37.75</p>

A Selection Of Quality Pumps Priced Low

Extra Heavy Hand Force Pump

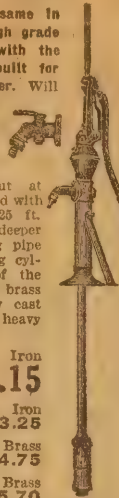
For deep or shallow wells made of the best materials by skilled mechanics. Extra long handle. This pump is anti-freezing. Has a large air chamber, internal air tubes, back outlet for discharge, brass covering, piston rod, brass stuffing box and heavy cast braces. We recommend this Pump as the very best general purpose Hand Force Pump made. Fitted with 4 ft. set length for 25 ft. wells. If this Pump is desired to discharge water through back outlet it can be fitted with a cock spout at \$1.50 additional.



4-Z-2357. 3x10. Iron Cylinder. Price..... **\$12.25**
4-Z-2359. 3½x10. Iron Cylinder. Price..... **\$13.35**
4-Z-2361. 3x10. Brass Body Cylinder. Price..... **\$14.65**
4-Z-2363. 3½x10. Brass Body Cylinder. Price..... **\$15.75**

Extra Heavy Windmill and Hand Force Pump

This pump is the same in construction as our high grade Pump No. 4-Z-2357 with the exception that it is built for windmill and hand power. Will force water through a hole to any desired elevation. If it is desired to discharge water through the back outlet order with cock spout at \$1.50 additional. Fitted with 4 ft. set length for 25 ft. well. Can be used in deeper wells by simply adding pipe and pump rods, keeping cylinder within 15 ft. of the water. Is fitted with brass stuffing box and heavy cast iron brace. Built for heavy work.



4-Z-2365. 3x10. Iron Cylinder. Price..... **\$12.15**
4-Z-2367. 3½x10. Iron Cylinder. Price..... **\$13.25**
4-Z-2369. 3x10. Brass Cylinder. Price..... **\$14.75**
4-Z-2371. 3½x10. Brass Cylinder. Price..... **\$15.70**

Premier Wind and Hand Force Pump Standard

The Premier Windmill Standard is designed for Windmills and Hand Force Pumps. Another all above ground Force Pump which is built heavy and strong with a plain or cock spout as desired. Fitted for 1½ in., 1½ in. or 2 in. Pipe and with back outlet for 1½ in. Pipe. Brass stuffing box, piston rod, revolving head, extra long handle and heavy braces. There is nothing better in Force Pump Standard. This is not a complete Pump and the price includes standard only. Standard is fitted for 6 in. stroke. In ordering, be sure and specify size of pipe for which you wish Pump fitted. Cock Spout for \$1.50 additional.



4-Z-2373. Fitted for 1½" or 1½" pipe. Price..... **\$10.00**
4-Z-2375. Fitted for 2-inch pipe. Price..... **\$10.75**

Our Renown Force Pump

A Force Pump that will do the business and is very cheap. Complete with hose connection. A wonderful bargain and gives absolute satisfaction. Cylinder 4 ft. down for cistern wells or wells 25 ft. deep or less. This pump, however, is adapted to wells as deep as 50 or 75 ft. The base may be adjusted after the pump is set by merely unloosening the set screw or raising or lowering the pump to the upper height.



4-Z-2401. 3x10 Iron Cylinder. Price..... **\$9.30**
4-Z-2405. 3x10 Brass Cylinder. Price..... **\$11.60**
For Windmill Head add..... **\$2.50**

Double Acting Under Ground 3-Way Force Pump

The latest thing in an Improved Anti - Freezing Hand Pump, for any depth well. For windmill or hand power. Quick-acting cam, 3-way lever, adjustable base, cast iron brace, large air valve, complete with hose connection, also cylinder and strainer. This is the best force pump to purchase for general purposes. It will discharge a great stream of water to any distance. Can be fitted with 1½ in. pipe without extra cost and with adjustable stroke.



6, 8 and 10 in. at an additional cost of \$3.00 Ratchet Head at additional cost of \$2.50
4-Z-2435. 2½ x 10 Brass Body. Price..... **\$15.25**
4-Z-2437. 3x10 Brass Body Cylinder. Price..... **\$16.50**
4-Z-2439. 3½ x 10 Brass Body Cylinder. Price..... **\$17.30**

Double Acting Ratchet Head Force Pump

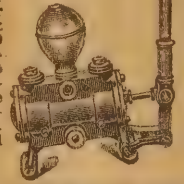
This Pump has adjustable base brass upper cylinder goose neck spout with hose connections, constructed to go in 5½ in. casing ratchet or gear head. It is an up-to-date and improved hand pump. By this construction the leverage is so much increased that a deep well being hard to pump with a fulcrum handle becomes easy to work with a Ratchet Head Pump. We furnish with this pump a lower cylinder which can be lowered to within 10 ft. of the water and used in wells of nearly any depth.



4-Z-2411. 2½ x 10. Polished Iron Cylinder. Price..... **\$10.50**
4-Z-2413. 3x10. Polished Iron Cylinder. Price..... **\$10.65**
4-Z-2415. 2½ x 10. Brass Cylinder. Price..... **\$13.15**
4-Z-2417. 3x10. Brass Cylinder. Price..... **\$13.95**

Double Acting Horizontal Force Pump

Brass lined cylinder, extension air pump brass piston, rod and valve seats, easy working, compact, powerful, substantial. This pump is used on our water works outfits for pumping water and air. This is the most powerful, reliable and efficient pump made for elevating water from well or cistern to attic tank or upper floors. Easy working against high pressure. It is double acting and has a capacity of about 300 gallons per hour. Has iron handles and provided with convenient hand holes. Each pump is tested at our factory and is guaranteed positively water and air tight. Cylinder heads are removable. Valves are easily unpacked by unscrewing. Piston rod and valve seats are brass. Both sides are tapped for 1½ in. suction and 1 in. discharge.



4-Z-2395. Horizontal Force Pump, 3-in. brass lined cylinder. Price..... **\$13.65**

When pump is used as combined water and air pump, we furnish same pump equipped with ¾ in. pet cock and ¼ in. check valve. Has pneumatic attachment to screw in cylinder head. To pump air and water simply open pet cock.

4-Z-2455. Combined Water and Air Pump. Price..... **\$16.15**

Double Acting Hand Force Pump

This Double Acting Force Pump has adjustable base, brass upper cylinder, goose neck spout with hose connection, constructed to go inside 5½ in. casing. Especially adapted to use with hose about house or barn, throws a steady stream and is easy to operate. This is a very neat, high class force pump at a very low price. For wells deeper than 25 ft. add pipe and pump rods to put cylinder down within 10 to 15 ft. below water mark in well.



4-Z-2427. 2½x10" Iron Cylind. Price..... **\$10.50**
4-Z-2429. 3x10 in. Iron Cylinder. Price..... **\$10.70**
4-Z-2431. 2½x10" Brass Cylinder. Price..... **\$13.10**
4-Z-2433. 3x10 in. Brass Cylinder. Price..... **\$13.95**

Premier Double Acting 3-Way Pump

For Windmill and Hand Power Under Ground Double Acting 3 Way Force Pump. This Pump is one of the most popular sellers which we have ever offered. They simply give perfect satisfaction under all conditions. This Pump is fitted with an up-to-date cam lever for quick adjustment and distributing valve. By merely throwing the lever you can change the Pump from spout supply to third way supply and force the water to tank or out on the lawn or any place you may desire. Pump is fitted with adjustable base, hose connection, strainer, brass upper cylinder, adjustable stroke and is tapped for 2 in. pipe with wood rod connection for tubular wells of any depth.



4-Z-2425. Without lower cylinder. Price..... **\$15.25**



Pumps are Divided Into Two Classes—Lift Pump and Force Pump

Write Us for General Pump Information, Instructions, Capacity, Etc.

OUR LEADER PUMP

The greatest pump bargain ever offered. Has a regular 4 ft. set length. Adapted for cisterns or wells not over 25 ft. deep. By lowering cylinder within 10 ft. of water it can be used in deeper wells. Has 6 in. stroke. Fitted with 3x10 iron cylinder. The top is a separate casting attached with a set screw, allowing you to set the handle to any position you wish. Body is cast and is large and strong and nicely finished. A wonderful bargain.

4-Z-2267. Price..... **\$7.75**

Dependable Pumps and Sprays

Pitcher Spout Pumps



\$2.90

For cisterns and shallow wells. Borel and polished, finished with two-coats green enamel paint, bronze striping. Bearer top revolves so handle can operate at any angle by raising handle to extreme height. Can drain to prevent freezing. Fitted for 1 1/2-in. pipe unless otherwise specified.

4-Z-2251. Size No. 2, 3 in. Iron Cylinder. Price.....**\$2.90**

4-Z-2253. Size No. 2, 3-in. Brass Lined Cylinder. Price.....**\$4.45**

Heavy Hand Lift Standard



This Standard is suitable for any depth well that can be pumped by hand. It is strongly built with revolving head, handle can be operated from any angle at the spout, 6-inch stroke, fitted for 1 1/2 inch pipe.

Large water-ways, strong iron brace. It is a very practical standard to use in drilled or dug wells. Prices quoted are for standard without cylinder. This standard can be used with our Cylinder. 4-Z-2723, 4-Z-2724, 4-Z-2725.

4-Z-2299. Price.....**\$4.30**

Perfection Anti-freezing Lift Pump



This Pump is set length fitted for deeper than 25 ft., but cylinder can be extended with additional pipe and pump rod into any depth well that can be pumped by hand.

It is equipped with a heavy, strong handle, revolving top so that the handle can be operated at any angle from the spout. It has a large spout and is fitted with very best polished iron, brass lined, or brass body cylinder. Fitted with a 4-ft. set length for 6-in. stroke. Fitted for 1 1/2-in. Pipe.

4-Z-2269. 3 1/2" 10" Iron Cylinder. Price.....**\$7.20**

4-Z-2271. 3x10-in. Iron Cylinder. Price.....**\$7.50**

4-Z-2275. 2 1/2x10-in. Brass Body Cylinder. Price.....**\$9.25**

4-Z-2277. 3x10-in. Brass Body Cylinder. Price.....**\$9.85**

Closed Top Anti-freezing



This Pump is designed for use in Public places where Children or middle-aged men may drop stones, metal, etc., into the open top that will damage the valves or make it necessary to open up for repairs.

It is built for deep drilled and dug wells, also for drive wells. Has revolving top. Furnished in either iron, brass lined or brass body cylinder. This pump is furnished with cylinder placed 4 ft. down for 25 ft. well but can be fitted for any depth well by using additional pipe, keeping cylinder within 15 or 20 ft. of the water. Fitted for 1 1/2-in. Pipe.

4-Z-2281. 3x10-in. Iron Cylinder. Price.....**\$9.50**

4-Z-2285. 3x10-in. Brass Body Cylinder. Price.....**\$11.25**

Improved Windmill Standard Adjustable Stroke



Specially adapted for deep hard pumping wells. Fitted with strong long range bearer top, long heavy handle and adjustable stroke, 6, 8 and 10 in. For Wind-mills, Gasoline Engines, Pump Jacks or Hand Power. Fitted for 1 1/2, 1 1/4 or 2 in. pipe. Always shipped for 2 in. pipe with malleable connections for wood pump rods unless otherwise specified.

4-Z-2297. Price.....**\$7.20**

Two-Way Kitchen Force Pump



This Pump is fitted with brass cylinder, brass valve seats, brass piston rod and stuffing box. It is tapped on top in the back of the head for 1-in. discharge pipe.

Has a spacious air chamber directly over cylinder at rear of Pump with brass compression top with hose connection. It is a very powerful Pump and will maintain a high pressure. We recommend that this Pump be placed within 25 ft. of the water. Complete with cock spout.

4-Z-2263. Size No. 1, 2 1/2-in. Brass Cylinder fitted for 1 1/2-in. pipe. Price.....**\$6.50**

4-Z-2265. Size No. 2, 3-in. Brass Cylinder fitted for 1 1/2-in. pipe. Price.....**\$7.10**

Improved Kitchen Force Pump

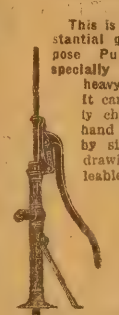


This Pump has a brass cylinder, brass valve seat, brass piston and stuffing box. Combines both features of a lift and force pump with a syphon spout with hose connection. It is tapped on top in the back of the head for a 1-in. discharge pipe. It will force the water to any desired elevation to the second or third floor or out on the lawn. The Trip to drain this Pump is operated by raising the handle to the extreme height.

4-Z-2264. Size No. 1, 2 1/2-in. Brass Body Cylinder, fitted for 1 1/2-in. pipe. Price.....**\$5.65**

4-Z-2266. Size No. 2, 3 in. Brass Body Cylinder, fitted for 1 1/2-in. pipe. Price.....**\$6.15**

Anti-freezing Windmill and Hand Lift Pump



This is a very substantial general purpose Pump. Built specially strong for heavy pumping, it can be quickly changed from hand to windmill by simply withdrawing the malleable pump pin from the pump handle to connect on the windmill pump rod. Furnished with the best polished iron, brass lined or brass body cylinder.

Pump is furnished with a 4-ft. set length suitable for wells up to 30 ft. deep. Also can be used for wells for any depth by using additional pipe and pump rods. Always keep the cylinder within 10 to 15 ft. of the water.

4-Z-2293. 3x10-in. Iron Cylinder fitted for 1 1/2-in. pipe. Price.....**\$9.65**

4-Z-2295. 3x10-in. Brass Body Cylinder fitted for 1 1/2-in. pipe. Price.....**\$10.80**

"Perfection" Spray Pump



These Pump Barrels are made of seamless brass tubing. The bottom is brass with brass gauze strainer. The valves are hard vulcanized rubber balls. The pressure which is brought on the down stroke can be easily made from 75 to 125 lbs. The nozzle will throw a spray or solid stream, sprinkle or fine mist. Every pump is equipped with agitator to keep spraying solution stirred up. Each pump is fitted with 3 ft. of extra heavy 4 ply hose and nozzle.

4-Z-2601. Price, with bucket attachment.....**\$4.20**

4-Z-2601. Price, fitted with holder instead of bucket attachment.....**\$4.25**

Big Mouth Stock Pump

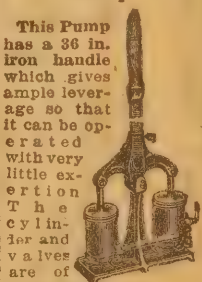


Especially adapted for stockmen's use. Where large volumes of water are to be realized by hand, this is the pump which we recommend. Built with a large waterway and reservoir, syphon spout, revolving head fitted for 2-in. pipe with 4-in. cylinder, strong brass and adjustable base; which is a feature of the great convenience after the pump is installed as it can be raised or lowered to raise suction pipe to free it from sediment at the bottom.

4-Z-2290. 4x10 Iron Cylinder fitted for 2-in. pipe. Price.....**\$10.55**

4-Z-2292. 4x10 Brass Cylinder fitted for 2-in. pipe. Price.....**\$12.95**

Double Acting Air Pump



This Pump has a 36 in. iron handle which gives ample leverage so that it can be operated with very little exertion. The cylinder and valves are of brass and pump is double acting and will provide a large column of air. The pump handle can be removed when pump is not in use. Diameter of the cylinder, 3 1/2 in.; length, 5 in.

4-Z-2421. Price.....**\$15.00**



Premier Thresher Tank Pumps

Large capacity double acting five-inch cylinder especially recommended where a large amount of water is required. Capacity, one to two barrels per minute. Furnished with goose neck discharge for one-inch hose, and suction for two-inch hose connection. By removing couplings can be used for two-inch iron pipe connection, or smaller size by using proper bushings. Has reversible head so that handle may be used on either side. Has brass valve seats and is superior to any tank pump on the market today. Suction strainer furnished free of charge with each pump.

4-Z-2457. Pump complete as described. Price.....**\$19.75**

4-Z-2459. Five inches crimped plunger leathers for pump, per set of two.....**\$1.05**

Horizontal Power Force Pump

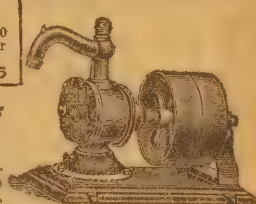


\$39.00

Capable of working against moderately high pressure. All Bearings are babbitted. Valves are brass with leather facing. Has brass Stuffing Nut. Cross Head is heavy malleable iron. Air cocks are provided to drain pump in cold weather. Occupies floor space 22x4 1/2 inches. Has a vertical suction lift 30 feet or less. Size tight or loose pulleys, 14x2 1/2 inches. Gearing ratio 3 to 1. Shipped from factory, Central Indiana. Price.....

4-Z-2537. 3 in. Dia. Suction Discharge Brass Cyl. Pipe. Pipe. Cylinder. 1 1/2 in. 1 1/2 in. 1 1/2 in. Price.....**\$39.00**

Rotary Power Force Pump



Largest capacity power force pump made. Especially adapted for irrigation purposes. Will force water 200 feet and throw a solid stream of water 30 feet. Spout is threaded for iron pipe at end and also at top. Bearings are babbit lined. Cap on upper discharge can be placed on end of spout and water discharged vertically.

	Capacity, Gals.	Suction Pipe.	Dis- charge Pipe.	Pulleys Inches.	Without Balance Wheel.
4-Z-2503.	18	1 1/2	1	7x2 1/2	\$20.45
4-Z-2505.	14	1 1/2	1	7x2 1/2	22.40
4-Z-2507.	17	1 1/2	1 1/4	8x2 1/2	25.00
4-Z-2509.	27	2	1 3/4	12x3 1/2	42.80
4-Z-2511.	30	2	2	12x3 1/2	48.00
4-Z-2513.	Balance	Wheel and Handle for			
Hand Power, extra.					\$6.25

HIGH GRADE PUMP CYLINDERS

THE PUMP CYLINDER IS THE MOST IMPORTANT PART OF THE PUMP and is that part that raises the water, and unless well made and the plungers and valves all fit properly, the most expensive working head and other parts of pump are rendered useless. Our cylinders are most carefully made, bored true, and we guarantee that the plungers fit accurately.

The cylinders, which we offer below are the same as fitted to our regular line of pumps. A 10-inch cylinder has a 6-inch stroke; a 12-inch cylinder an 8-inch stroke; a 14-inch cylinder a 10-inch stroke and a 16-inch cylinder a 12-inch stroke. 2-inch cylinders are fitted for 1-inch pipe; 2½ or 3-inch cylinders fitted for 1½-inch pipe; 3½-inch for 1½-inch pipe and 4-inch cylinders fitted for 2-inch pipe. We recommend brass body cylinders as they outwear the iron cylinders and work more easily.

IRON BODY BRASS LINED CYLINDERS

4-Z-2723.

Diam. Inch.	10	12	14	16
2	\$4.38	\$4.63	\$4.93	\$5.20
2½	4.65	4.95	5.40	5.95
3	5.25	5.55	6.00	6.50
3½	6.10	6.55	7.00	7.85
4	7.60	8.30	9.20	10.20

BRASS BODY CYLINDERS WITH ALL BRASS PLUNGERS

4-Z-2724½.

Diam. Inch.	10	12	14	16
2	\$5.85	\$6.75	\$7.10	\$7.85
2½	6.20	7.10	7.65	8.50
3	7.15	8.00	8.55	9.30
3½	8.40	10.00	10.75	11.70
4	11.30	13.15	13.85	15.00

ALL IRON CYLINDERS

4-Z-2725.

Diam. Inch.	10	12	14	16
2	\$2.00	\$2.58	\$2.82	\$2.85
2½	2.35	2.80	3.05	3.25
3	2.70	3.27	3.50	3.75
3½	3.78	4.21	4.68	5.25
4	4.88	5.38	6.09	6.80

PLUNGER LEATHERS.

4-Z-2727. Made from best oak tanned leather.
Diam. Cyl. 2 2½ 3 3½ 4
Each 10c 12c 16c 23c 30c

LOWER VALVE LEATHERS.

4-Z-2728. Made from the best oak tanned leather.
Diam. Cyl. 2 2½ 3 3½ 4
Each 5c 8c 10c 14c 17c

EUREKA TUBULAR WELL CYLINDER

MADE OF SEAMLESS DRAWN BRASS TUBING with brass valves and designed to fit inside of the pipe in which it is used. The cylinder is perfectly flush, having no cam making it possible to be slipped into pipe and set at any depth desired.

It can be readily removed & repaired or taken up and replaced in another well.

A seating tool is used in this purpose in connection with 1-inch pipe of sufficient length to lower seating tool to depth which cylinder is to be placed. A spring coupling is placed in the walls inside of pipe. Length of stroke inches.

Size	Each
4-Z-2777 2 inch	\$ 4.9
4-Z-2778 2½ inch	7.3
4-Z-2779 3 inch	10.8

Wrought Iron Tubular Cylinders

A polished tubular well cylinder, made of galvanized or plain extra strong wrought-iron pipe, bored and polished. Unless otherwise specified, we will furnish with shoulder for holding turned coupling for seating check valves.

Shoulder in 24 and 36 inch are three inches and in the 48 inch length, 12 inches from bottom of cylinder. **PRICES DO NOT INCLUDE VALVES.**

Diam. Inch.	Length Inch.	Painted Galv.		Painted Galv.	
		Cyl. Driving	Shoe Driving	Cyl. Driving	Shoe Driving
4-Z-2728	2	24	\$2.48	\$2.88	\$1.85
4-Z-2729	2	36	3.30	3.72	2.68
4-Z-2730	2	48	4.15	4.70	3.50
4-Z-2731	2½	36	5.48	6.18	4.75
4-Z-2732	2½	48	7.00	7.80	6.25
4-Z-2733	3	36	7.45	8.45	6.60
4-Z-2734	3	48	9.50	10.10	8.75
4-Z-2735	4	36	11.55	12.95	9.90

Brass Lined Tubular Well Cylinder

This cylinder is made of wrought-iron pipe bored out and a brass lining of seamless brass tubing inserted and swaged into position. This cylinder possesses the smoothness of an all-brass tube cylinder, and is not as liable to become injured by external pressure or sudden jars. We recommend the use of this cylinder in preference to the polished wrought-iron tubular well cylinder as the pump will work easier and the leathers on the plunger will wear longer. Unless otherwise specified, this cylinder will be furnished with shoulder three inches from bottom. **Prices Do Not Include Valves.**

Diam. of Cyl. In.	Length of Cyl. In.	Price with Driving Shoe	Price without Driving Shoe
4-Z-2737	2	\$ 5.00	\$ 4.35
4-Z-2738	2	6.35	5.70
4-Z-2739	2	8.80	9.00
4-Z-2740	2½	8.10	7.45
4-Z-2741	2½	6.75	5.75
4-Z-2742	2½	8.70	7.70
4-Z-2743	3	8.25	7.00
4-Z-2744	3	10.75	9.50
4-Z-2745	3	14.00	12.75
4-Z-2746	4	15.70	13.60
4-Z-2747	4	19.80	17.75

SEATING TOOL USED IN CONNECTION WITH EUREKA TUBULAR WELL CYLINDERS

For Placing the Cylinder in Position With Pipe, also for drawing cylinder up out of well.

In ordering, Order Same Size Tool as Cylinder.
4-Z-2780 Size Inches 2, 2½, 3
Price, each \$0.54 .73 1.00

TURNED COUPLINGS

Wrought-iron Couplings turned and faced; used to suspend strainer from shoe or shoulder in well and to seat tubular well check valve. Threaded right hand.

4-Z-2781.	For 2 in. cylinder
1½-inch strainer.	Each. 27
4-Z-2782.	For 2 in. cylinder
1-inch strainer.	Each. 45
4-Z-2783.	For 2½ in. cylinder
1½-inch strainer.	Each. 48
4-Z-2784.	For 2½ in. cylinder
1½-inch strainer.	Each. 57
4-Z-2785.	For 3 in. cylinder
1½-inch strainer.	Each. 63
4-Z-2786.	For 3 in. cylinder
2-inch strainer.	Each. \$1.35
4-Z-2787.	For 4 in. cylinder
2½-inch strainer.	Each. \$1.35

ALL BRASS WORKING BARRELS

ESPECIALLY RECOMMENDED FOR DEEP TUBULAR WELLS. They must be fastened with well packer and gum packer shown elsewhere on this page. Intermediate sizes not listed will take price of next larger size. Furnished for pipe or casing. In ordering, specify correct inside diameter of pipe or casing.

Directions for Fastening:—Attach seating tool to pump rod, insert in key way of well packer, lower in well to place you wish to seat cylinder, turn pump rod to right, which forces taper wedge into rubber ring, expanding same and making tight joint, release seating tool and withdraw rod from well. Now attach pump rod to plunger of cylinder, screw check valve to bottom of plunger below, drive same firmly in taper end of cylinder. Now take gum packer, shown opposite, place on outside of working barrel, crowding until it expands to size of well; now lower complete outfit to place in well where well packer is fastened, unscrew plunger from check valve and attach pump rod to pump head.

Size of Well, Inches	Inside Dia. of Cylinder, Inches	Length of Stroke, Inches	Length of Barrel, Inches	Price of Cylinder Complete
4-Z-2748	2	1½	10	\$11.75
4-Z-2749	2	1½	14	12.30
4-Z-2750	2	1½	24	14.00
4-Z-2751	2	1½	36	15.65
4-Z-2752	2½	2½	10	15.70
4-Z-2753	2½	2½	14	16.25
4-Z-2754	2½	2½	24	17.35
4-Z-2755	2½	2½	36	19.00
4-Z-2756	3	3	10	20.70
4-Z-2757	3	3	14	21.85
4-Z-2758	3	3	24	23.50
4-Z-2759	3	3	36	25.75
4-Z-2760	3½	3½	10	28.50
4-Z-2761	3½	3½	14	32.60
4-Z-2762	3½	3½	24	36.95
4-Z-2763	3½	3½	36	41.40
4-Z-2764	4	4	14	43.85
4-Z-2765	4	4	24	48.00
4-Z-2766	4	4	36	51.00
4-Z-2767	4½	4½	10	53.75
4-Z-2768	4½	4½	14	55.00
4-Z-2769	4½	4½	24	57.50
4-Z-2770	4½	4½	36	61.00
4-Z-2771	5	5	24	78.95
4-Z-2772	5	5	36	83.40

GUM PACKER

Gum Packers with brass attached for seating working barrels.

4-Z-2749½

Diameter of Well Casing, Inches	Price
2	\$1.90
2½	2.60
3	3.45
3½	4.35
4	5.60
4½	7.10
5	7.85
6	11.10

WELL PACKER

Well Packer for making tight joints between strainer and well casing; also used as support for all brass working barrel.

4-Z-2748½

Diam. of Well, Inches	Bottom of packer threaded for pipe, Inches	Price
2	1½	\$1.70
2½	1½	2.25
3	2	3.05
3½	2	5.00
4	2½	6.75
4½	3	8.40
5	3½	11.25
6	4	15.75

WELL CASING

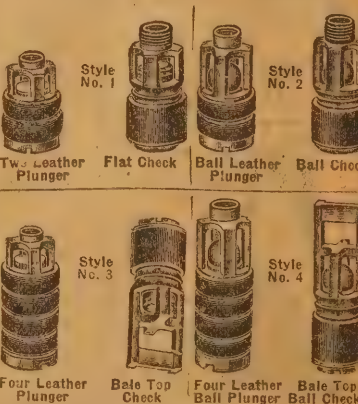
See Index for Bargains in "S. & S." well casings at 50 per cent saving.

SAND PUMP

4-Z-2789½. Used for removing sand from drilled or bored wells. Is strong and well made and can be furnished in any size required. Usual length, 48 inches, but can be made longer if desired.

3-inch. Price, \$3.40
4-inch. \$4.50
Price for 5, 6 and 7 inch and larger sizes on application.

TUBULAR WELL VALVES



TUBULAR WELL VALVES


Our Tubular Well Valves are heavy and strong and of the best quality of brass, carefully and well finished inside and out, fitted with the best oak tan leathers.

Prices quoted below per set consist of check and plunger valve.

Size, Inches	Leathers	Price Per set	Size, Inches	Leathers	Price Per set
4-Z-2788	2	\$2.60	4-Z-2794	4	\$12.95
4-Z-2789	2	3.35	4-Z-2795	4	15.40
4-Z-2790	2½	4.20	4-Z-2796	5	25.00
4-Z-2791	2½	5.60	4-Z-2797	6	28.00
4-Z-2792	3	6.35	4-Z-2798	6	30.80
4-Z-2793	3	7.85			

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Perfection Hydraulic Rams



Here is one of the most wonderful machines for water supply ever placed on the market. It will automatically lift water to a tank or reservoir, providing it is placed so as to obtain a fall of 2 ft. or more from the stream, or source of supply to this ram.

As example: If you are near a stream, lake or body of water, so situated that you can secure a fall of 2 ft. or more from the water to the location of the ram, the ram will automatically discharge a certain portion of the water to a point considerably above and beyond the ram.

Our Perfection Ram should be placed below a spring or stream of water at a distance varying from 25 to 50 ft. For every 10 ft. that you wish to elevate the water, the ram must be placed 10 feet below the level of the Spring. Should you wish to elevate the water to a height of 50 feet, the ram would have to be placed at a point 5 ft. lower than the source of supply.

A ram with a 10 ft. fall will drive about 1/7 of the water furnished a distance of 100 to 200 feet to a position 100 to 200 ft. above the level of the ram.

Order No.	Size No.	Supply per Min. to Operate Ram	Length of Drive Pipe	CALIBER OF PIPES	Price
4-Z-2517	3	2 to 4 gal.	50 to 75 ft.	1 in.	\$15.75
4-Z-2519	4	3 to 7 gal.	50 to 100 ft.	1 1/4 in.	20.25
4-Z-2521	6	6 to 11 gal.	50 to 150 ft.	2 in.	24.75
4-Z-2523	8	11 to 25 gal.	50 to 200 ft.	2 1/2 in.	47.00

Order No.	Size No.	Supply per Min. to Operate Ram	Length of Drive Pipe	CALIBER OF PIPES	Price
4-Z-2517	3	2 to 4 gal.	50 to 75 ft.	1 in.	\$15.75
4-Z-2519	4	3 to 7 gal.	50 to 100 ft.	1 1/4 in.	20.25
4-Z-2521	6	6 to 11 gal.	50 to 150 ft.	2 in.	24.75
4-Z-2523	8	11 to 25 gal.	50 to 200 ft.	2 1/2 in.	47.00

Galvanized Steel Pump Rods

This Rod is used for connecting Pump cylinders to Pump Standards. They are heavily galvanized and come in lengths of 8 feet not threaded.

Diameter, Inches	Price, per Foot
4-Z-2605. 3/8	6c
4-Z-2607. 1/2	6 1/2 c

Extra for threading either size. Price for each thread 2c.

We will cut rod special lengths including threads without coupling as quoted below:

Diameter, Inches	Price, per Foot
4-Z-2609 3/8	7c
4-Z-2611. 1/2	7 1/2 c


Galvanized Pump Rod Couplings

To be used in connection with Galvanized Steel Pump Rod. These couplings are malleable iron heavily galvanized and are threaded.

Size, inches to the inch	Price, each
4-Z-2613. 3/8	7c
4-Z-2615. 1/2	8c
4-Z-2617. 3/4	9c

Reducing Pump Rod Coupling. Price, each. 9c

"Lightning" Pump Stock and Dies



4-Z-2619. 2 dies and 1 stock. Will cut all threads. Size, inches, 3/8 & 1/2. Price, each. **\$3.85**

Wood Pump Rods

Made of first quality ash thoroughly seasoned. Furnished complete with couplings, lengths ranging from 18 to 21 feet and are shipped in random lengths. EXTRA CHARGE IF CUT TO LENGTH.

Size, inches	Weight per hundred feet	Price, per foot
4-Z-2625. 1 1/2-inch Octagon with Wrought Iron Couplings.	20	20c
4-Z-2627. 1 1/4-inch Octagon with Wrought Iron Couplings.	30	30c
4-Z-2629. 1 1/2-inch Octagon with Wrought Iron Couplings.	40	40c

Wood Pump Rod Couplings

Galvanized Malleable Wood Rod Couplings.

Size, inches	Price, per Set
4-Z-2633. 1-inch Malleable Iron.	40c
4-Z-2635. 1 1/2-inch Malleable Iron.	44c

Galvanized Wrought Iron Wood Rod Couplings

For Octagon Ash Pump Rod.

Size, inches	Length of Coupling, inches	Price, Per Set
4-Z-2637. 1 1/4	25	\$2.00
4-Z-2639. 1 1/2	35	3.15
4-Z-2641. 1 3/4	43	5.15

HARRIS BROTHERS CO.
26th and Iron Streets, Chicago.

Stuffing Box Heads

Used in connection with tubular wells in place of Pump Standards.



Fig. 1 Fig. 2 Fig. 3

	Pipe Size, Inches	Stroke, Inches	Price Each
4-Z-2643.	1 1/4	10	\$3.60
4-Z-2645.	1 1/2	10	3.60
4-Z-2647.	2	10	3.60

Stuffing Box Head (Fig. No. 2) made of iron with 3/8-inch polished steel pump rod.

Pipe Size, Inches	Stroke, Inches	Price Each
4-Z-2649. 1 1/4	10	\$2.05
4-Z-2651. 1 1/2	10	2.05
4-Z-2653. 2	10	2.05

Stuffing Box Head (Fig. No. 3) made of cast brass with 3/8-inch polished steel pump rod.

Pipe Size, Inches	Stroke, Inches	Price Each
4-Z-2655. 1 1/4	10	\$2.70
4-Z-2657. 1 1/2	10	2.70
4-Z-2659. 2	10	2.70

Drive Well Points

They are made of wrought iron pipe, galvanized inside and out after the holes are punched. They are covered with brass gauze and have a great filtering surface. No. 60 gauze is generally used. No. 100 gauze is for quick sand. We can furnish either flush point for tubular well or with cast point for driving. Be sure and give number when ordering.

Diam., Inches	Length, Inches	No. 60 gauze	No. 100 gauze
1 1/4	24	\$1.80	\$4.00
1 1/4	30	2.30	5.00
1 1/4	36	2.80	6.00
1 1/4	42	3.30	7.00
1 1/2	30	3.00	5.90
1 1/2	36	3.60	7.10
1 1/2	48	4.80	8.30
2	36	5.25	9.50

Foot Valves

A combination Foot Valve and Strainer. It is placed on the end of pipe in the bottom of cistern or well and prevents anything passing into the pipe and thereby choking the cylinder. It also serves the purpose of a check valve, keeping water in the pipe and making priming unnecessary.

Size, inches	Price, each
21-Z-2664. For 1 in. pipe.	\$0.60
21-Z-2665. For 1 1/4 in. pipe.	.72
21-Z-2667. For 1 1/2 in. pipe.	.94
21-Z-2669. For 2 in. pipe.	1.23

Gauze Covered Strainers

Used on the end of well and cistern pipe and is covered with brass cloth.

Size, inches	Price, each
4-Z-2671. 1 1/4	\$0.39
1 1/2	\$0.44
2	\$0.50
2 1/2	\$0.63

Water Conductors

Used to conduct water from spout of pump to tank and are made with a swivel so water can be carried in any direction from the pump.

Size, inches	Price, each
21-Z-2673. 1 1/4	\$0.72
1 1/2	\$0.72

Well Wheels

4-Z-2675. For use with rope size, 3/8-inch or smaller. Can also be used with regular well chain. Width of frame, 10 inches. Japanned finish.

Price **95c**

Drive Caps

Used for driving pipe for Drive Wells. Guaranteed not to crush the thread.

21-Z-2677.

Size, in.	Price each
1 1/4	\$0.33
1 1/2	\$0.39
2	\$0.72
2 1/2	\$1.65
3	\$2.10
4	\$2.50

Cast Steel Drive Shoes

These shoes are made of cast special steel and have a recess as shown in illustration, to prevent the pipe from spreading or breaking off at end of threads. They have an inside shoulder to prevent the pipe from being forced through the shoe.

4-Z-2679.

Size	Price each	Size	Price each
2 inches.....	\$1.20	4 inches.....	\$4.15
2 1/2 inches.....	1.65	4 1/2 inches.....	5.60
3 inches.....	2.25	5 inches.....	6.40
3 1/2 inches.....	3.75	6 inches.....	9.75


Size	Price each	Size	Price each
2 inches.....	\$1.20	4 inches.....	\$4.15
2 1/2 inches.....	1.65	4 1/2 inches.....	5.60
3 inches.....	2.25	5 inches.....	6.40
3 1/2 inches.....	3.75	6 inches.....	9.75

Babcock Pipe Lifter and Holder

Used by well drillers. It is simple and perfect in its operation, guaranteed not to tear or damage pipe. Handles pipe from 1 to 2 inches inclusive.

Approximate weight 45 lbs.


4-Z-2681. Price **\$7.00**



Monitor Pipe Holder

Capacity from 1 to 2 inches. Simple in construction and easily operated. The dog is chill hardened and will not wear. Grips the pipe perfectly and guaranteed not to slip.

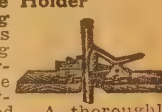
4-Z-2683. Price **\$5.60**



Little Giant Pipe Holder

A new device for holding pipe. Will hold pipe sizes 1, 1 1/2 and 2 inches. Dog has corrugated chilled surface, making it impossible for the pipe to slip. Strongly made and well finished. A thoroughly practical and satisfactory tool.

4-Z-2685. Price **\$3.00**



Float Valves

5-Z-2687. Reversible float outlet valves for automatically controlling the flow of water in reservoirs, stock tanks, cisterns, etc., and is equally effective under high or low pressure. Valve opens with flow instead of against it. Valve will not stick and is not injured by freezing. By reversing the lever a perfect outlet valve is obtained.


Size, inches	Price each
3/4	\$1.25
1	\$1.85
1 1/4	\$1.95



Tank Floats

To be used in connection with Float Valves. Stem being attached to valve lever to open and close automatically.

Size, inches	Price each
5-Z-2689. Copper Floats. 9 1/2 x 2 1/4	\$1.85
5-Z-2691. Galvanized Tank Floats. 10 x 2 1/4	\$1.95




Murdock Lawn Hydrants

4-Z-2693. The body of this Hydrant is ornamental and anti-freezing. When shut off, the valve at the bottom drains the body of the Hydrant. This valve can be removed from the top and be repaired without taking up the hydrant.

The top of these Hydrants are well constructed and nicely finished. All parts are made from the very best material and each Hydrant is fully guaranteed.

Size, inches	Price
3/4	\$6.75
1	\$7.00
1 1/4	\$7.75
1 1/2	\$8.45



See the Tool Bargains in This Book!

Attractive Edgewater Design Lock Sets



ANTIQUE COPPER OR
LEMON BRASS. **\$9.80**
Set

Genuine wrought bronze. A very popular pattern.

CYLINDER FRONT DOOR-LOCK SETS
The Best Cylinder Lock Manufactured

5-pin tumbler cylinder, non-pickable. Lock size $5\frac{1}{2} \times 4$ inches. $2\frac{1}{4}$ -inch knobs. $\frac{3}{8}$ -inch swivel spindle. 3 German silver keys. Outside escutcheon $3 \times 9\frac{1}{2}$ inches; inside escutcheon $2\frac{1}{2} \times 7\frac{1}{2}$ inches. Cylinder, bolts, strike, escutcheons and all trimmings are genuine wrought bronze. Reversible for right or left hand doors. Complete with screws to match.

4-Z-3001. Antique copper finish, polished. **\$9.80**
Price, per set.....

4-Z-3003. Lemon brass finish. Price, per set.....**\$9.80**

ANTIQUE COPPER OR
LEMON BRASS. **\$2.25**
Set

A Real Beauty and a Very Popular Inside Door Lock Set.

Size of lock $3\frac{3}{4} \times 3\frac{3}{4}$ inches. Escutcheons $2\frac{3}{4} \times 7\frac{1}{2}$ inches. $2\frac{1}{4}$ -inch knobs. Nickel plated steel key. Escutcheons, knobs, bolts, strike and trimmings are all genuine wrought bronze. Reversible for right or left hand doors. Complete with screws.

4-Z-3009. Antique copper finish, polished. Per set.....**\$2.25**

4-Z-3011. Lemon brass finish. Per set **\$2.25**

WROUGHT STEEL INSIDE DOOR LOCK SETS

As described above, except furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-Z-3010. Antique copper finish, polished. Price per set.....**\$1.10**

4-Z-3012. Lemon brass finish. Per set.....**\$1.10**

PUSH PLATES
Wrought bronze metal with screws to match. Size $3 \times 9\frac{1}{2}$ inches.

4-Z-3021. Antique copper finish, pol. **85c**
Each

4-Z-3023. Lemon brass finish. Each **85c**

DOOR BELLS

Bronze metal $1\frac{1}{2} \times 4$ inches. $3\frac{1}{2}$ inch nickel plated bell, metal gong.

4-Z-3025. Antique copper finish, pol. **\$1.00**
Price..

4-Z-3027. Lemon brass finish. Price.. **\$1.00**

ANTIQUE COPPER OR
LEMON BRASS. **\$4.15**
Set

SLIDING DOOR LOCK SETS

Size of lock $4\frac{1}{2} \times 3\frac{3}{4}$ inches. Escutcheons $7\frac{1}{2} \times 2\frac{1}{2}$ inches. Escutcheons and all trimmings are genuine wrought bronze. Single door sets have two flush cup escutcheons; double door sets have four. For flat front doors only. Complete with screws to match.

4-Z-3013. Antique copper finish, polished. For single doors. Price per set..... **\$3.75**

4-Z-3015. For double doors. Price per set..... **\$4.80**

4-Z-3017. Old or lemon brass finish. For single doors. Price per set..... **\$3.75**

4-Z-3019. For double doors. Price per set..... **\$4.80**

ANTIQUE COPPER OR
LEMON BRASS. **\$4.10**
Set

FRONT DOOR LOCK SETS

Size of lock, $4\frac{1}{2} \times 3\frac{3}{4}$ inches. Two nickel-plated steel night keys and 1 lock key. Outside escutcheon, $8 \times 9\frac{1}{2}$ inches; inside escutcheon, $2\frac{1}{2} \times 7\frac{1}{2}$ inches. $2\frac{1}{4}$ -inch knobs. $\frac{3}{8}$ -inch swivel spindle. Escutcheons, knobs, bolts, strike and all trimmings are genuine wrought bronze. Reversible for right or left hand doors. Complete with screws to match.

4-Z-3005. Antique copper finish, polished. Price per set..... **\$4.10**

4-Z-3007. Lemon brass finish. Per set..... **\$4.10**

WROUGHT STEEL FRONT DOOR LOCK SETS

As described above, except furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-Z-3008. Antique copper finish, polished. Price, per set..... **\$2.25**

4-Z-3008. Lemon brass finish. Per set..... **\$2.25**

Popular Colonial Design Lock Sets



ANTIQUE COPPER OR
LEMON BRASS. **\$9.80**
Set

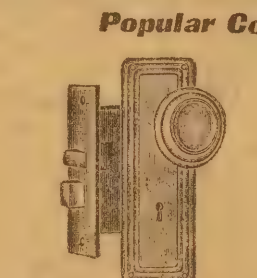
A very pleasing pattern which has proved to be our largest seller, being often specified in connection with our highest priced house designs.

CYLINDER FRONT DOOR LOCK SETS

Heavy beaded edges, finely finished. Five-pin tumbler cylinder, non-pickable. Lock size, $5\frac{1}{2} \times 4$ inches. $2\frac{1}{4}$ -inch knobs. $\frac{3}{8}$ -inch swivel spindle. Three German silver keys. Outside escutcheon, $2\frac{1}{2} \times 9\frac{1}{2}$ inches; inside escutcheon, $2\frac{1}{2} \times 7$ inches. Cylinder, bolts, strike, escutcheons, knobs and all trimmings are genuine wrought bronze. Reversible for right or left hand doors. $1\frac{1}{2}$ to $2\frac{1}{4}$ inches thick. With screws to match.

4-Z-3029. Antique copper finish, polished. Price per set..... **\$9.80**

4-Z-3031. Lemon brass finish. Price per set..... **\$9.80**



ANTIQUE COPPER OR
LEMON BRASS. **\$2.25**
Set

GENUINE BRONZE INSIDE DOOR LOCK SETS

A very pleasing design. Size of lock, $3\frac{3}{4} \times 3\frac{3}{4}$ inches. Escutcheons, $2\frac{1}{2} \times 7$ inches. Nickel plated steel key. Escutcheons, knobs, bolts, strike and all trimmings are of genuine wrought bronze. Reversible for right or left hand doors. Complete with screws.

4-Z-3041. Antique copper finish, polished. Price per set..... **\$2.25**

4-Z-3043. Lemon brass finish. Price per set..... **\$2.25**

WROUGHT STEEL INSIDE DOOR LOCK SETS

As above described except are furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-Z-3045. Antique copper finish, polished. Price per set..... **\$1.10**

4-Z-3047. Lemon brass finish. Set..... **\$1.10**



PUSH PLATES
Bronze metal with screws to match. Size $9\frac{1}{4} \times 2\frac{1}{2}$ inches.

4-Z-3065. Antique copper finish, polished. Price per set..... **85c**

4-Z-3067. Lemon brass finish. Each **85c**

DOOR BELLS

Bronze metal plate. $1\frac{1}{2} \times 3\frac{1}{2}$ inches. $3\frac{1}{2}$ inch nickel-plated bell metal gong.

4-Z-3069. Antique copper finish, polished. Price per set..... **\$1.00**

4-Z-3071. Lemon brass finish. Price per set..... **\$1.00**



ANTIQUE COPPER OR
LEMON BRASS. **\$3.75**
Set

SLIDING DOOR LOCK SETS

Size of lock, $4\frac{1}{2} \times 3\frac{3}{4}$ inches. Escutcheons, $7 \times 2\frac{1}{2}$ inches. Escutcheons and all trimmings are genuine wrought bronze. Single door sets have two flush cup escutcheons; double door sets have four. For flat front doors only. Complete with screws.

4-Z-3049. Antique copper finish, polished. For single doors. Per set..... **\$3.75**

4-Z-3051. For double doors. Price per set..... **\$4.80**

4-Z-3053. Lemon brass finish. Single doors. Set..... **\$3.75**

4-Z-3055. For double doors. Price per set..... **\$4.80**

As above described except are furnished with bronze plated wrought steel escutcheons, bolts and trimmings.

4-Z-3057. Antique copper finish, polished. Single doors. Per set..... **\$2.60**

4-Z-3059. For double doors. Price per set..... **\$3.75**

4-Z-3061. Lemon brass finish. Single doors. Set..... **\$2.60**

4-Z-3063. For double doors. Price per set..... **\$3.75**



ANTIQUE COPPER OR
LEMON BRASS. **\$4.10**
Set

FRONT DOOR LOCK SETS

An ornament to any door. Size of lock, $4\frac{1}{2} \times 3\frac{3}{4}$ inches. Two nickel-plated steel night keys and 1 lock key. Outside escutcheon, $8 \times 9\frac{1}{2}$ inches; inside escutcheon, $2\frac{1}{2} \times 7$ inches. $2\frac{1}{4}$ -inch knobs. $\frac{3}{8}$ -inch swivel spindle. Knobs, bolts, strike and all trimmings are genuine wrought bronze. Reversible for right or left hand doors. Complete with screws to match.

4-Z-3033. Antique copper finish, polished. Price per set..... **\$4.10**

4-Z-3035. Old or lemon brass finish. Per set..... **\$4.10**

WROUGHT STEEL FRONT DOOR LOCK SETS

As above described, except are furnished with bronze plated wrought steel knobs, escutcheons and trimmings.

4-Z-3037. Antique copper finish, polished. Price per set..... **\$2.25**

4-Z-3039. Old or lemon brass finish. Set..... **\$2.25**

BEST FINISHES

WARRANTED GRADES

SELECT DESIGNS

Wilmette Design Lock Sets

\$9.80
Set

CYLINDER
FRONT DOOR
LOCK

Genuine Bronze
4-2-3201.

Antique copper
finish. Price,
per set.. **\$9.80**

4-2-3203.

Old or lemon
brass finish.
Price, per
set.. **\$9.80**

BIT-KEYED
FRONT DOOR
LOCK

Furnished with one key to operate both
bolts.

4-2-3205. Genuine bronze antique
copper finish. Price, **\$4.10**
per set.

4-2-3207. Genuine bronze, old or
lemon brass finish. **\$4.10**

4-2-3209. Wrought steel, antique
copper finish, polished. **\$2.15**

4-2-3211. Wrought steel, old or
lemon brass finish. **\$2.15**

INSIDE DOOR LOCK

4-2-3213. Genuine bronze, antique
copper finish. **\$2.25**

4-2-3215. Genuine bronze, old or
lemon brass finish. Price, per set **\$2.25**

4-2-3217. Wrought steel, antique
copper finish, polished. Price per set **\$1.10**

4-2-3219. Wrought steel, old or
lemon brass finish. Price per set **\$1.10**

SLIDING DOOR LOCKS

4-2-3221. Antique copper finish. For
single doors. **\$3.75**

4-2-3222. Antique copper finish. For
double doors. Price, per set.. **\$5.25**

4-2-3225. Old or lemon brass finish.
For single doors. Price, per set.. **\$3.75**

4-2-3227. Old or lemon brass finish.
For double doors. Price, per set.. **\$5.25**

SLIDING DOOR LOCKS

4-2-3229. Antique copper finish. For
single doors. **\$2.60**

4-2-3231. For double doors. **\$3.75**

4-2-3233. Old or lemon brass finish.
For single doors. Price, per set.. **\$2.60**

4-2-3235. For double doors. **\$3.75**

Price, per set.. **\$3.75**

4-2-3237. Antique copper finish,
polished. **85c**

4-2-3239. Old or lemon brass finish.
Price, each **85c**

BRONZE METAL PUSH PLATES

4-2-3241. Antique copper finish.
Price, each **\$1.00**

4-2-3243. Old or lemon brass finish.
Price, each **\$1.00**

Argyle Design Lock Sets

\$9.80
Set

CYLINDER
FRONT DOOR
LOCK

Genuine Bronze
4-2-3301.

Antique copper
finish. Price,
per set.. **\$9.80**

4-2-3303.

Old or lemon
brass finish.
Price per
set.. **\$9.80**

BIT-KEYED
FRONT DOOR
LOCK

Furnished with one key to operate both
bolts.

4-2-3305. Genuine bronze, antique
copper finish. Price, **\$4.10**
per set.

4-2-3307. Genuine bronze, old or
lemon brass finish. **\$4.10**

4-2-3309. Wrought steel, antique
copper finish, polished. **\$2.15**

4-2-3311. Wrought steel, old or
lemon brass finish. **\$2.15**

INSIDE DOOR LOCK

4-2-3313. Genuine bronze, antique
copper finish. **\$2.25**

4-2-3315. Genuine bronze, old or
lemon brass finish. Price, per set **\$2.25**

4-2-3317. Wrought steel, antique
copper finish, polished. Price, per set **\$1.10**

4-2-3319. Wrought steel, old or
lemon brass finish. Price, per set **\$1.10**

SLIDING DOOR LOCKS

4-2-3321. Antique copper finish.
For single doors. **\$3.75**

4-2-3323. Antique copper finish.
For double doors. Price, per set.. **\$5.25**

4-2-3325. Old or lemon brass finish.
For single doors. Price, per set.. **\$3.75**

4-2-3327. Old or lemon brass finish.
For double doors. Price, per set.. **\$5.25**

SLIDING DOOR LOCKS

4-2-3329. Antique copper finish, polished.
For single doors. **\$2.60**

4-2-3331. For double doors. Price, **\$3.75**

4-2-3333. Old or lemon brass finish.
For single doors. Price, per set.. **\$2.60**

4-2-3335. For double doors. Price **\$3.75**

per set **\$3.75**

BRONZE METAL PUSH PLATE

4-2-3337. Antique copper finish, polished. Price, each **85c**

4-2-3339. Old or lemon brass finish.
Price, each **85c**

BRONZE METAL DOOR BELLS

4-2-3341. Antique copper finish, polished. Price, each **\$1.00**

4-2-3343. Old or lemon brass finish.
Price, each **\$1.00**

Evanston Design Lock Sets

\$9.80
Set

CYLINDER
FRONT DOOR
LOCK

Genuine Bronze
4-2-3101.

Antique copper
finish. Price,
per set.. **\$9.80**

4-2-3103.

Old or lemon
brass finish.
Price, per
set.. **\$9.80**

BIT-KEYED FRONT DOOR LOCK

Furnished with one key to operate both
bolts.

4-2-3105. Genuine bronze, antique
copper finish. Price, **\$4.10**
per set.

4-2-3107. Genuine bronze, old or
lemon brass finish. **\$4.10**

4-2-3109. Wrought steel, antique
copper finish, polished. **\$2.15**

4-2-3111. Wrought steel, old or
lemon brass finish. **\$2.15**

INSIDE DOOR LOCK

4-2-3113. Genuine bronze, antique
copper finish. **\$2.25**

4-2-3115. Genuine bronze, old or
lemon brass finish. Price, per set **\$2.25**

4-2-3117. Wrought steel, antique
copper finish, polished. Price, per set **\$1.10**

4-2-3119. Wrought steel, old or
lemon brass finish. Price, per set **\$1.10**

SLIDING DOOR LOCKS

4-2-3121. Antique copper finish.
For single doors. **\$3.75**

4-2-3123. Antique copper finish.
For double doors. **\$5.25**

4-2-3125. Old or lemon brass finish.
For single doors. **\$3.75**

4-2-3127. Old or lemon brass finish.
For double doors. **\$5.25**

SLIDING DOOR LOCKS

4-2-3129. Antique copper finish, polished.
For single doors. **\$2.60**

4-2-3131. For double doors. Price, **\$3.75**

4-2-3133. Old or lemon brass finish.
For single doors. **\$2.60**

4-2-3135. For double doors. **\$3.75**

per set **\$3.75**

BRONZE METAL PUSH PLATES

4-2-3137. Antique copper finish, polished. Price, each **85c**

4-2-3139. Old or lemon brass finish.
Price, each **85c**

BRONZE METAL DOOR BELLS

4-2-3141. Antique copper finish, polished. Price, each **\$1.00**

4-2-3143. Old or lemon brass finish.
Price, each **\$1.00**

Oak Park Design Lock Sets

\$9.80
Set

CYLINDER
FRONT DOOR
LOCK

Genuine Bronze
4-2-3241.

Antique copper
finish. Price,
per set.. **\$9.80**

4-2-3247.

Old or lemon
brass finish.
Price, per
set.. **\$9.80**

BIT-KEYED
FRONT DOOR
LOCK

Furnished with one key to operate both
bolts.

4-2-3249. Genuine bronze antique
copper finish. Price, **\$4.10**
per set.

4-2-3251. Genuine bronze, old or
lemon brass finish. **\$4.10**

4-2-3253. Wrought steel, antique
copper finish, polished. **\$2.15**

4-2-3255. Wrought steel, old or
lemon brass finish. **\$2.15**

INSIDE DOOR LOCK

4-2-3257. Genuine bronze, antique
copper finish. **\$2.25**

4-2-3259. Genuine bronze, old or
lemon brass finish. Price, per set **\$2.25**

4-2-3261. Wrought steel, antique
copper finish, polished. Price, per set **\$1.10**

4-2-3263. Wrought steel, old or
lemon brass finish. Price, per set **\$1.10**

SLIDING DOOR LOCKS

4-2-3265. Antique copper finish.
For single doors. **\$3.75**

4-2-3267. Antique copper finish.
For double doors. **\$5.25**

4-2-3269. Old or lemon brass finish.
For single doors. **\$3.75**

4-2-3271. Old or lemon brass finish.
For double doors. **\$5.25**

SLIDING DOOR LOCKS

4-2-3273. Antique copper finish, polished.
For single doors. **\$2.60**

4-2-3275. For double doors. Price, **\$3.75**

4-2-3277. Old or lemon brass finish.
For single doors. **\$2.60**

4-2-3279. For double doors. **\$3.75**

BRONZE METAL PUSH PLATES

4-2-3281. Antique copper finish, polished. Price, each **85c**

4-2-3283. Old or lemon brass finish.
Price, each **85c**

BRONZE METAL DOOR BELLS

4-2-3285. Antique copper finish, polished. Price, each **\$1.00**

4-2-3287. Old or lemon brass finish.
Price, each **\$1.00**

GENUINE WROUGHT BRONZE CYLINDER STORE DOOR LOCK AND HANDLE

4-2-3363. Antique copper finish.
Size of lock 4x3 1/2 inches. 5-pin
tumbler cylinder, non-pickable.
Size of plates 3x12 inches. 2
handles, one for either side of
door. 3 German silver keys.
Complete with screws to
match. Price, per set.. **\$9.95**



SPLENDID VALUE LOCK SET

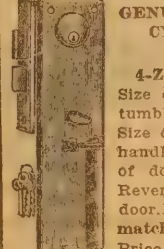
Austin Design

Best moderate price lock
set front door lock, size
4 1/2 x 3 1/2 in. Outside es-
cutcheon 2 1/4 x 8 in. Re-
versible for right or left
hand door. **\$2.50**

4-2-3345. Set.. **\$2.50**

Austin Design Inside Lock

4-2-3357. **\$1.20**
Per set



GENUINE WROUGHT BRONZE CYLINDER STORE DOOR LOCK AND HANDLE

4-2-3355. Antique copper finish.
Size of lock 5x3 1/2 inches. 5-pin,
tumbler cylinder, non-pickable.
Size of plates 3x12 inches. 2 bar
handle grips, one for either side
of door. 3 German silver keys.
Reversible for right or left hand
door. Complete with screws to
match. **\$11.25**

Price, per set.. **\$11.25**

WROUGHT STEEL ELECTRO BRONZE PLATED STORE DOOR HANDLE AND LOCK SETS

4-2-3359. Antique copper finish.
Size of lock 4 1/2 x 3 1/2 inches. Size of
plates 3x12 inches. 2 handles, one
for either side of door. 2 nickel plated flat
steel keys. Reversible for right or left
hand doors. Complete with screws to
match. **\$3.75**

Price, per set.. **\$3.75**

GENUINE WROUGHT BRONZE
PLATED STORE DOOR LOCK
SET AND HANDLE

4-2-3361. Same as 4-2-3359, except
plates, handles, bolts, strike and trim-
mings are genuine wrought bronze with
screws to match. **\$7.85**

Price, per set.. **\$7.85**



DOOR PUSH PLATES

Size 2 1/4 x 9 3/4 in. finely fin-
ished with screws to match.

GENUINE BRONZE METAL

4-2-3583. Antique cop- **70c**
per finish. Each.

4-2-3584. Old or lemon **70c**
brass finish. Each.

WROUGHT STEEL PLATED

4-2-3585. Antique cop- **25c**
per finish. Each.

4-2-3586. Old or lemon **25c**
brass finish. Each.



WROUGHT STEEL ELECTRO BRONZE PLATED STORE DOOR HANDLE AND LOCK SET

4-2-3351. Antique copper finish. Size
of lock, 4 1/2 x 3 1/2 inches. Size of plates 3x12
inches. 2 bar handle grips, one for either
side of door. Two nickel plated flat steel
keys. Reversible for right or left hand doors.
Complete with screws to match. **\$3.75**

Price, per set.. **\$3.75**

GENUINE WROUGHT BRONZE STORE
DOOR LOCK AND HANDLE

4-2-3353. Same as above described, ex-
cept that plates, grips, strike, bolts and
trimmings are genuine bronze metal. Com-
plete with screws to match. **\$7.85**

Price, per set.. **\$7.85**



Sash Cord, Weights, Bolts
Balances, Pulleys and
Cabinet Hardware

BUILDERS' HARDWARE

Comparison Will Show
the Extent of Your Savings
in Our Prices

SASH CORD



Made of special selected long fiber cotton firmly braided. The strongest and most durable manufactured. Put up in bundles of 100 feet.

Per bundle
4-Z-3647. No. 8, 3/32 in. diam. \$1.90
4-Z-3645. No. 7, 7/32 in. diam. 1.85

SASH WEIGHTS



10-Z-3643. Four weights are required to hold each window. Weights range from 3 to 9 pounds by half pounds. Heavier than 9 pounds graduate by pounds. Per lb. 3c

WROUGHT STEEL DRAWER PULLS



Wrought steel electro plated with screws to match. Length 3 3/8 inches.

4-Z-3623. Antique Copper, polished finish. Each 4c
4-Z-3625. Old or Lemon Brass finish. Each 4c

BRASS DRAWER HANDLES AND KEYHOLE ESCUTCHEONS



Stamped Brass
4-Z-3845. Drawer handle bolts, 3 inches from center to center. Each... 8c



Stamped Brass
4-Z-3841. Keyhole escutcheon complete with Pins. Nicely finished. Doz... 22c



Cast Brass
4-Z-3840. Complete with Pins. Per six... 55c



CUPBOARD LOCKS

4-Z-3835. Two Secure Levers. For right or left hand door. Wide Bolt. Width 1 1/2 in., length, 3 in. With one Fancy Bow Key. Each.....59c

CUPBOARD CATCHES

Electro Plated, Polished Wrought Steel with screws to match.



4-Z-3591. Antique Copper finish. Each.10c
4-Z-3592. Old or Lemon Brass finish. Each 10c

SPRING SASH BALANCES



4-Z-3637. Used instead of sash weights and cord. Easy to apply and do not require box frames. Springs are made of special tempered steel, heavily coppered to prevent rust. Warranted to retain their full strength. Set consists of four balances, two each for top and bottom sash.

Size No.	Weight of each Sash	Height of Sash	Wt. Per Sash	Per Set of 4 Balances	Price Per Set of 4
6	4 to 6 lbs.	34 in.	6 lbs.	2.40	
8	6 to 8 lbs.	34 in.	6 lbs.	2.64	
10	8 to 10 lbs.	34 in.	7 lbs.	2.88	
12	10 to 12 lbs.	44 in.	7 lbs.	3.12	
14	12 to 14 lbs.	44 in.	7 1/2 lbs.	3.36	
16	14 to 16 lbs.	44 in.	7 1/2 lbs.	3.60	
18	16 to 18 lbs.	48 in.	9 1/2 lbs.	3.84	
20	18 to 20 lbs.	48 in.	10 lbs.	4.08	

HANGERS AND FASTENERS

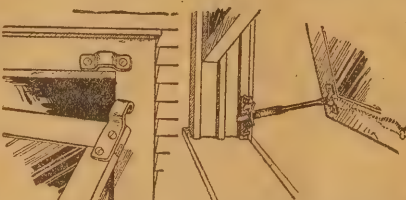


Illustration shows Storm Sash with Hanger, ready to hang. Works like a hinge, one on each corner at top. Simplest contrivance ever devised. Hangers and Fasteners made of malleable iron.

Adjustable Fastener—Sash swung out when closed the extension bar turns in and lies flat against bottom rail of sash, forming a perfect lock, prevents rattling and holds sash tight.

4-Z-2000. Hangers and Fasteners, with screws complete, per set.... 42c
4-Z-2005. Hangers only, with screws, per pair..... 20c
4-Z-2012. Fasteners only, with screws, per pair..... 24c

CAST BRASS KNOBS



4-Z3842. Black Enameled Handles. Brass plate, nicely finished. 45c
Per four..... 45c



4-Z-3844. Finely Finished 1 1/2 inches in diameter. 62c
Per four..... 62c

WINDOW SETS FOR BASEMENT, DORMER AND ATTIC WINDOWS



A great time saver. For carpenters and builders. Hinged to swing Strong and durable. Presses the sash tightly into the frame, excludes the cold and prevents rattling.

4-Z-3619. For sash hinged at side. Set consists of one pair 2 1/2 inch wrought steel butts, one japanned steels sash fastener. Packed in box complete with screws. Per set 17c
4-Z-3621. For sash hinged at top. Set consists of one pair 2 1/2 inch wrought steel butts, one japanned steels sash fastener, one hook and eye. Packed in box complete with screws. Per set 19c

STEEL SASH PULLEY



4-Z-3649. Electrically welded and cannot break. Require no screws. Simply bore three holes and drive the pulley in. Diameter of wheel 2 inches. Per dozen..... 75c

WITHOUT SCREWS



CHEST HANDLES
4-Z-3630. Japanned Iron Chest Handles. Size, 4 in. without screws. Per Pair.. 27c



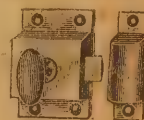
DOOR BUTTONS
4-Z-3655. Japanned finish. Length 1 1/2 inches. Per doz... 9c
Length, 2 in. Per doz.. 12c



CUPBOARD CATCHES
4-Z-3609. Iron japanned finish. Each... 6c

CUPBOARD TURNS

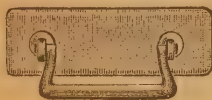
Electro Plated, Polished Wrought Steel
4-Z-3596. Antique Copper, polished finish. 19c
Each 19c
4-Z-3597. Old or Lemon Brass finish. 19c
Each 19c



GENUINE WROUGHT BRONZE CUPBOARD TURNS

With Screws to Match
4-Z-3598. Antique Copper finish. 50c
Each 50c
4-Z-3599. Old or Lemon Brass Finish. 50c
Each 50c

CABINET AND CUPBOARD HARDWARE



CONCORD DROP HANDLE

A neat and simply designed handle; suitable for buffets, sideboards and china closets. Unusually well made and nicely finished.

4-Z-15016. Antique Copper. Price each 40c
4-Z-15017. Lemon Brass. Price each 40c



4-Z-3834 CYLINDER STEEL DRAWER LOCK

Brass Cylinder, strong and secure. For wood 1/2 inch thick. Width, 1 1/2 inch, with 2 Nickel Plated Flat Steel Keys. 55c
Each 55c



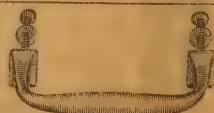
4-Z-3833 SELF-LOCKING CHEST LOCKS

All Iron with Brass Keyhole Escutcheon. Double bitted keys. Width, 2 1/2 inches. 75c
Each 75c



4-Z-3831 DRAWER LOCKS

2 1/2 in. wide. Has two secure levers for wood 3/4 in. thick. One key. 60c
Each 60c
4-Z-3832. Brass Drawer Locks. Same as above. 74c
Each 74c



CAST IRON DRAWER PULL

A very popular drawer pull owing to the fact that it is applied with machine screws through the wood from the inside, making it stationary. Is suitable for drawers, buffets, bookcases, china cases, etc.

4-Z-15018. Antique Copper. Price each 18c
4-Z-15019. Lemon Brass. Price each 18c

Superior Grades in Dependable Hardware at Substantial Savings

REAL ECONOMY PRICES

Barn Door Hinges, Tracks Bolts, Pull Latches, etc. Stair Rail Hardware



4-Z-3925. Heavy polished Wire Hooks and Eyes.
Inches
Length 2 3 4
Each .21c 3c 3 1/2c
Doz. .26c 32c 39c



4-Z-3923. Wrought Hooks and Staples.
Length, 4 in., ea. .6c
Price, per doz. .57c
Length, 6 in., ea. .7c
Per dozen.....78c



Heavy wrought steel strap with double hook and staples.

4-Z-3913.
Length, In. 6 8 10
Each5c 8c 9c

DOUBLE PIVOTED GATE
4-Z-3937. A strong, practical japanned steel gate hanger. Weight of gate hangs on center at its strongest point. Can be easily raised to clear snow or other obstacles. Is fastened to post with two lag screws. Price, including lag screws.....\$1.14

BARN DOOR PULLS
4-Z-3963.
Extra heavy cast iron.
Each3c

STEEL CENTER BRACKET
4-Z-3905. Steel Center Brackets for track 4-Y-3903. Japanned Finish, complete with lag screws for attaching. Price, each.....21c

STEEL BARN DOOR TRACK
4-Z-3947. Strong and rigid. Suitable for any ordinary door. Size, 3/16x1 inch. Lengths, 4, 6, 8, and 10 feet. Per foot.....8c

EXTRA HEAVY TRACK
4-Z-3949. For use with hinge joint or other styles of barn door hangers. Made of steel, size, 1 1/4x3/16-inch. Come in lengths, 4, 6, 8, and 10 ft. Price, per foot.....10c

HINGE JOINT BARN DOOR HANGERS
Hinge joint makes it possible to swing the door in or out. Provided with a guard, making it impossible to jump the track. Has chilled roller bearings. Wheel, axles and bearings are fully protected from the weather.
4-Z-3921. Price, per pair90c

Hinges Wrought Steel, Standard Size, Strictly First Quality
Size given is measurement from joint to end of hinge. Without screws.

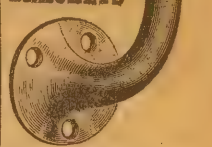


4-Z-3929
Light wrought steel strap hinges. Size given is length from joint to end of hinge.
Size, Inches... 3 4 5 6
Takes Screw
No. 6 7 8 9
Per Pair.....8c 10c 12c 16c

4-Z-3931
Heavy wrought steel strap hinges. Size given is length from joint to end of hinge.
Inch Screw Pr. Pair
6 10 \$0.19
8 12 .29
10 12 .45
12 14 .70
14 16 .88

4-Z-3933
Wrought steel screw strap hinges. Each pair requires two 3/8-inch and four 1/2-inch bolts to put them on. Bolts are not included at prices quoted.
Size, inches... 10 12 14
Per Pair.....35c 39c 55c

STAIR RAIL BRACKETS



Projects two inches from wall to center of rail. These brackets are used to support hand railing.
4-Z-15022. Coppered bronze finish.
Each18c

WROUGHT LIGHT STEEL "T" HINGES



4-Z-3927
Inches 3 4
Per pair... 8c 10c
Inches 6 8
Per pair... 15c 19c

WROUGHT HEAVY STEEL "T" HINGES



4-Z-3909 Size... 6 8
Pair... 17c 21c
EXTRA Heavy T Hinges
4-Z-3910
Inches 6 8 10 12
Pr. 23c 38c 53c 78c

PRESSED STEEL BRACKET

PER PAIR, **12c**

4-Z-3451. Strong and unbreakable Japanned finished without screws.
Size in.... 4x5 6x8 7x9
Per pair... 12c 18c 22c
Size in.... 8x10 10x12 12x14
Per pair... 26c 39c 62c



4-Z-3939
Security Combination Hook and Hasp. Wrought Steel.
Length, 8 inches. Each...9c



Heavy Wrought Steel Hinge
4-Z-3935
Length, In. 3 6 8 10
Each 9c 15c 21c 32c



BARN DOOR BOLT
4-Z-3907
Heavy Pattern suitable for stables and out-houses. Length, 8 inches.
Price, each.....40c



BARN DOOR LATCH
4-Z-3951. Automatic sliding or swinging door latch with attachment for lock. Strong and durable. The latch can be thrown back, leaving the edge of door clear; has inside latch and pull.
Price, each.....40c

BARN DOOR STAY ROLLERS

4-Z-3911. Reversible for inside and outside doors. Adjustable for any thickness of door. Diameter of wheel, 2 inches. Price, each, 14c



LOOSE AXLE ANTI-FRICTION HANGERS

Guaranteed not to bind or jump the track. Wheels are mounted on hardened steel axles. Our prices do not include bolts.

4-Z-3941. For doors 6 foot run. Diameter of wheel 3 inches. Require 1/2-in. bolts.
Per pair.....\$1.25

4-Z-3943. For doors 8 foot run. Diameter of wheel, 3 inches. Require 1/2 inch bolts.
Per pair.....\$1.55

ANTI-FRICTION ROLLER BEARING BARN DOOR HANGERS

Made entirely of steel except the wheel. The axle is of hardened steel. Prices do not include bolts.

4-Z-3917. Size of wheel, 3 1/2 inch. For small and medium size doors.
Per pair.....\$0.35

4-Z-3919. Size of wheel, 4 inch. Suitable for the largest size doors.
Per pair.....\$1.05

ROLLER BEARING TROLLEY HANGERS

Wheels run inside of hollow steel track. Can not bind or jump the track. Suitable for doors 1 1/2 to 2 1/4 inches thick. A set consists of two hangers, two end brackets and one center bracket. Complete with screws and bolts.

4-Z-3901. Price per set, complete, without track\$2.20

4-Z-3903. Trolley track for above hangers, brackets not included. Lengths, 4, 5, 6, 8 and 10 feet.
Price per foot....24c

GATE HINGE
4-Z-3953.
Will swing both ways. Does not require spring or weight. Wrought upper hinge, cast lower hinge. Japanned Finish. Per set.....\$1.00

GRAVITY GATE LATCH
4-Z-3959.
Overcomes shrinking and sagging of gate posts. Made of steel and malleable iron. Easily applied. Price, each27c

4-Z-3957.
For right or left hand gates. Also gates that swing both ways. Adjustable to meet any sag in the gate.
Each14c

TINNED SAFETY GATE HOOKS AND STAPLES
4-Z-3961.
Length 4, 6, 8 in. Each, 15c-23c

**DOOR BUTTS, LATCHES,
LOCKS, BOLTS, BASE
KNOBS, HINGES,
FASTENERS, ETC.**

BUILDERS' HARDWARE

**SUPERIOR GRADES
FOR DOORS, BEST FINISH
AND CONSTRUCTION.
LOWEST PRICES**

RIM LOCKS

Heavy Japanned Cases. Reversible for right or left hand doors. Packed complete with screws. Each lock fully warranted.



**NARROW FAST PIN
WROUGHT STEEL
BUTTS**

4-Z-3579. Plain without screws.

Inch 1½ 2 2½ 3
Doz. pairs 50c 72c 83c \$1.30

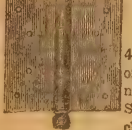
**ELECTRO PLATED POLISHED
TRANSOM
BUTTS**

Heavy wrought steel, fast pin, finely finished, with screws to match.



4-Z-3581. Antique Copper Finish.
Inch 2½x2½ 3x3 3½x3½
Per pair 27c 30c 34c

**JAPANNED LOOSE PIN BALL
TIPPED
STEEL
BUTTS**

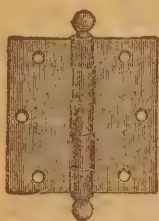


4-Z-3577. Made of heavy steel, nicely japanned. Screws not included.

Inch 2½x2½ 3x3 3½x3½
Per pair 22c 24c 26c

Inch 4x4 4½x4½ 5x5
Per pair 32c 45c 60c

**HIGH GRADE ELECTRO
PLATED POLISHED
WROUGHT STEEL BALL
TIPPED BUTTS**



Guaranteed to be the best finished wrought steel butts manufactured. Heavy, highly polished and finely finished. Furnished with screws to match.

4-Z-3501. Antique copper polished finish.

Inch 2x2 2½x2½ 3x3 3½x3½ 4x4 4½x4½ 5x5
Per pair 64c 72c 76c 83c 96c \$1.10 \$1.76

4-Z-3503. Old or Lemon Brass Finish.
Inch 2x2 2½x2½ 3x3 3½x3½ 4x4 4½x4½ 5x5
Per pair 64c 72c 76c 83c 96c \$1.10 \$1.76

**ELECTRO PLATED POLISHED
BALL TIPPED BUTTS**

Electro Plated Polished. Made of the same grade steel and generally sold as a polished butt, every sense equal to the high grade butts, except not as finely finished. Furnished with screws to match.

4-Z-3505. Antique Copper Finish.
Inch 2x2 2½x2½ 3x3 3½x3½ 4x4 4½x4½
Per pair 32c 34c 35c 36c 47c 70c

PLANISHED WROUGHT STEEL BUTTS

4-Z-3507. Old or Lemon Brass Finish.
Inch 2x2 2½x2½ 3x3 3½x3½ 4x4 4½x4½
Per pair 32c 34c 35c 36c 47c 70c

**UPRIGHT RIM KNOB
LOCK**



Size 4x3½ inches, with stop, iron bolts and tinned malleable key.
4-Z-3409. Lock only without knob. Each 29c
4-Z-3411. With brown mineral knob. Per set 54c
4-Z-3413. With jet knob. Per set 54c

**HORIZONTAL RIM KNOB
LOCKS**



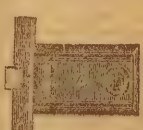
Size 3¾x4¼ inches, 3 brass bolts, nickel plated steel key.
4-Z-3427. Lock only without knob. Each 37c
4-Z-3429. With brown mineral knob. Each 67c
4-Z-3431. With jet knob. Per set 67c

**STORE DOOR RIM DEAD
LOCK**



4-Z-3439. Strong and durable. Japanned iron case, 5x8½ in. Heavy wrought iron bolt, steel inside bolts, 2 nickel plated, steel folding keys. Complete with Screws. Price 80c

MORTISE DOOR LATCHES



Japanned iron case, 1½x3½ inches iron bolts, front and strike.
4-Z-3467. With brown mineral knobs. Each 43c
4-Z-3469. With jet knobs. Per set 45c
4-Z-3465. Latch only. Per set 18c

Japanned iron cases, 1½x3½ inches. Brass front, bolt and strike.
4-Z-3471. Latch only without knobs. Each 30c
4-Z-3473. With brown mineral knobs. Per set 62c
4-Z-3475. With jet knobs. Per set 62c

**UPRIGHT RIM KNOB
LOCK**



Size 4x3½ inches, 3 brass plated bolts, nickel plated steel key.
4-Z-3415. Lock only without knob. Each 35c
4-Z-3417. With brown mineral knobs. Per set 65c
4-Z-3419. Black jet knob. Per set 65c

**HORIZON-
TAL RIM
KNOB
LATCHES**

Size 2½x3¼ in. Japanned case, iron bolt and hub, with screws reversible.
4-Z-3448. Latch only without knobs. Each 29c
4-Z-3445. With brown mineral knob. Per set 54c
4-Z-3447. With jet knobs. Per set 54c

**CYLINDER RIM
NIGHT LATCH**



4-Z-3439. A durable lock which affords the utmost security. Size 3½x2½ inches, with genuine bronze metal bolts, cylinder, escutcheon, knob and stop. 3 Yale pattern German silver keys, suitable for doors up to 3 inch thick. Price \$2.30

**HORIZONTAL RIM KNOB
LOCK**



Size 3¾x4¼ in. With iron bolts, tinned malleable key.
4-Z-3421. Lock only without knob. Each 29c
4-Z-3423. With brown mineral knobs. Per set 54c
4-Z-3425. With jet knob. Per set 54c

**HORIZONTAL RIM DEAD
LOCKS**



Size 2x2½ in. Japanned iron case and escutcheons. Per set 40c. Complete with screws.
4-Z-3433. Lock only without knobs. Each 21c
4-Z-3435. With brown mineral knobs. Per set 46c
4-Z-3437. With jet knobs. Per set 48c

**TUBULAR RIM NIGHT
LATCH**



4-Z-3440. Japanned iron case, sizes 3½x2½ inches. For doors up to 1½ inches thick. Japanned case, iron bolts, nickel plated flat steel keys, bronze metal escutcheons, beveled strike with screws reversible. Price 65c

MORTISE DOOR LOCKS



Japanned case, 3¾x3¼ inches, iron bolts, lacquered front and strike, tinned key. Japanned escutcheon with screws.
4-Z-3453. Locks only without knobs. Each 36c
4-Z-3455. With brown mineral knobs. Each 67c
4-Z-3457. With jet knobs. Each 67c
Japanned case, 3¾x3¼ inches. Brass front and bolts, plated strike, nickel plated steel key. Japanned escutcheon with screws.
4-Z-3459. Locks only without knobs. Each 78c
4-Z-3461. With brown mineral knobs. Per set \$1.09
4-Z-3463. With jet knobs. Per set \$1.11

DOOR KNOBS



Rim Knobs Mortise Knobs
Strictly first quality. Japanned shanks and roses. Knobs 2½ inches in diameter with 5-16 inch spindles. Price includes one pair knobs, complete with connecting spindle. Mineral knobs are brown mottled; porcelain knobs are white; jet knobs are black.
4-Z-3477. Mineral knobs for rim locks. Each 25c
4-Z-3479. Porcelain knobs for rim locks. Each 28c
4-Z-3481. Jet knobs for rim locks. Each 28c
4-Z-3483. Mineral knobs for mortise locks. Each 30c
4-Z-3485. Porcelain knobs for mortise locks. Each 30c
4-Z-3487. Jet knobs for mortise locks. Each 30c

WEATHER STRIPS



Felt weather strip, made of strong, durable black wool felt, half-inch width for windows; five-eighths inch width for sides and top of door; three-fourths inch for bottoms of door. Put up fifty feet to a package.
4-Z-3719.
Inches ¾ 1 1½
Per ft. 3/20 4c 4½c
Per pkg. \$1.44 \$1.68 \$1.92

RUBBER STRIPS

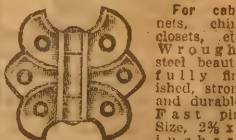
Seals cracks around windows and doors; made of the best grade rubber, one-half inch wide for windows, three-fourths inch wide for tops and sides of doors, one inch wide for bottom of doors. Put up in packages containing fifty feet.
4-Z-3717.
Inches ¾ 1 1½
Per ft. 3/20 4c 4½c
Per pkg. \$1.50 \$1.80 \$2.50

**CLARK'S GRAVITY BLIND
HINGES**



For frame houses. Throws blind 1½ in. from casing. Set includes four hinges and two fasteners. Flat head screws are to be used with these sets.
Per set 12c

CABINET HINGES



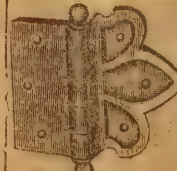
For cabinets, china closets, etc. Wrought steel beautifully finished, strong and durable. Fast pin. Size, 2½ x 2 inches.
Packed with screws to match.
4-Z-3537. Antique copper finish.
4-Z-3539. Old or lemon brass finish.
Per pair 18c

**THE HARRIS DOUBLE ACTING
BALL BEARING
FLOOR HINGE**



We have overcome the objectionable features of most floor hinges that rest on the surface of the floor, made from heavy wrought iron spring from the best oil tempered spring steel, the entire weight of the door is carried on hardened steel ball bearings set in hardened cups.
Lot No. 4-Z-3545. Antique copper finish. \$1.60
Lot No. 4-Z-3547. Old or lemon brass finish. 1.60

**ORNAMENTAL ELECTRO PLATED SURFACE
BUTTS**



Most artistic and the best appearing butt manufactured. Heavy and strongly made, raised design, giving a massive appearance, beautifully finished. Exceedingly popular, economical, and time saving.
They are reversible for right or left hand doors. Size 1½ inch is used largely for Cupboards, Cabinets, Closets, etc. All sizes are loose pin with ball tip. Size given is length of joint. Packed with screws to match.
4-Z-3533. Antique copper finish.
4-Z-3535. Old or lemon brass finish.
Size, inches 1½ 3 3½ 4
Price, per pair 20c 45c 50c 64c

**SASH LOCKS, FASTENERS,
BOLTS, LATCHES,
LIFTS, ETC.,
TRANSOM TRIMMINGS**

QUALITY GUARANTEED

**ALL ITEMS ARE THE
BEST GRADES PRODUCED
TO SELL AT THESE
LOW PRICES**

METAL BASE KNOBS

Bronze plated. Extra long heavy screws. Heavy rubber tip. Length 2½ inches.
4-Z-3573. Antique Copper. Each10c
4-Z-3574. Lemon Brass. Each10c

HARDWOOD BASE KNOBS

Rubber tipped. Well pointed screws. Nicely finished.
4-Z-3572. Each.....3c

MORTISE DOOR BOLTS

Strong and secure. "T" handle thumb piece. Plates and screws to match.
4-Z-3615. Antique Copper. Each25c
4-Z-3617. Lemon Brass. Each25c

ELECTRO PLATED WROUGHT STEEL CHAIN BOLTS

Length, 6 inches, with 2 feet of chain. Screws to match.
4-Z-3511. Antique Copper.....50c
4-Z-3513. Lemon Brass.....50c

FOOT BOLTS

Electro plated wrought steel, spring release. Length 6 inches. Screws to match.
4-Z-3515. Antique Copper.....57c
4-Z-3517. Lemon Brass.....57c

FLUSH BOLTS

A heavy cast iron plated Flush Bolt, 1 in. wide; furnished in two sizes. For use on Casement Sash or French Windows. Complete with screws.
4-Z-15010. 6-inch Flush Bolts. Lemon Brass. Each.....55c
4-Z-15011. 6-inch Flush Bolts. Antique Copper. Each.....55c

REVERSIBLE CASEMENT FASTENERS

Fasteners. Size, 1½ x 1½ inches. Screws to match.
4-Z-3587. Antique Copper. Per set.....22c
4-Z-3588. Lemon Brass. Per set.....22c

POLISHED BRONZE METAL

4-Z-3589. Antique Copper. Per set.....48c
4-Z-3590. Lemon Brass. Per set.....48c

BARREL BOLTS

4-Z-3855. Wrought steel, nicely japanned. Polished steel bolt and brass knob.
Length of bolt, in... 3 4 5 6
Each11c 12c 14c 15c

VENTILATING SASH FASTENERS

Permits opening of windows at top, bottom or both top and bottom with perfect security against intrusion. Strong and durably made. Easily attached. Electric bronze plated. Screws to match.
4-Z-3639. Antique Copper. Each.....25c
4-Z-3641. Lemon Brass. Each.....25c

BAR SASH LIFTS

Electro plated wrought steel. Length of handle, 3 inches; length over all, 4 in.
4-Z-3559. Lemon Brass. Each.....11c
4-Z-3557. Antique Copper. Each.....11c

STOP SCREWS AND WASHERS

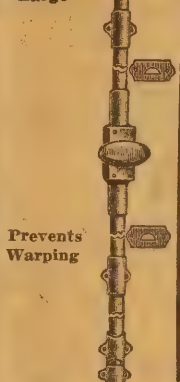
4-Z-3657. Antique Copper. Per doz.....10c
4-Z-3659. Lemon Brass. Per doz.....10c

ELECTRO PLATED SWINGING DOOR HOLDERS

A convenient and practical attachment that will hold a swinging door at any angle desired. Particularly suited to swinging restaurant kitchen doors where an attachment is required that may be operated easily with the foot in passing. Spring release. The rubber tipped bolt will not mar or injure carpet.
4-Z-3709. Japanned Finish.....75c
4-Z-3711. Antique Copper.....95c
4-Z-3713. Lemon Brass.....95c

CREMORNE BOLTS

For French Windows - or - Large



Prevents Warping

Cast iron bolt specially adapted for French windows or large casement sash and is furnished with universal strikes. Unless otherwise specified will be furnished with rods for sash up to 8 feet high.

This is the only bolt that will hold the sash in place and prevent warping.

4-Z-15000. Antique Copper. Price each...\$8.00
4-Z-15001. Lemon Brass. Price each..... 8.00

CAST IRON PLATED

4-Z-15002. Antique Copper. Price each...\$4.25
4-Z-15003. Lemon Brass. Price each..... 4.25

CASEMENT WINDOW FASTENERS

Cast iron plated; either right or left hand. Size of plate, 2½ in. by ½ in. Has a double strike for single sash opening in, or pairs of sash opening out.
4-Z-15006. Plate Metal, Lemon Brass Finish. Each.....32c
4-Z-15007. Plate Metal, Antique Copper Finish. Each.....32c

CASEMENT WINDOW ADJUSTER

Made of plated steel rod, ¾-inch diameter. This adjuster is for sash opening out and will hold the sash at any angle. Two finishes.
4-Z-15004. Antique Copper. Price each.....40c
4-Z-15005. Lemon Brass. Price each.....40c

CONCORD FRENCH WINDOW OR SCREEN DOOR SET

Reversible mortise latch, 1¾x1¾ inch square hub for ¾-inch spindle; brass front. Can be set by slide knob, which prevents opening from outside.
4-Z-15012. Lemon Brass...\$1.35
4-Z-15013. Antique Copper. 1.35

SAFETY HASPS, PLAIN STEEL

With Screws
4-Z-315. Size, 4½ in. Weight, about 6 oz. Price20c
4-Z-316. Size, 6 in. Weight, about 10 oz. Price25c

SIDE SASH LOCKS

Holds as firm as a vise; prevents rattling of windows. Locks sash securely at any desired height. Convenient for perfect ventilation. Screws to match.
4-Z-3607. Antique Copper. Each18c

STEEL SASH LOCKS

Electro plated. The strongest and most durable sash lock made. Holds sash closely together, prevents rattling. Screws furnished.
4-Z-3601. Antique Copper and old or Lemon Brass. Each9c

AUSTIN DESIGN BRONZE PLATED IRON CHAIN AND FOOT BOLTS

Black background; polished raised surface. Length, 6 inches. Chain bolts fitted with 2 feet of copper chain. Screws to match.
4-Z-3549. Chain Bolts. Each.....45c
4-Z-3551. Foot Bolts. Each.....40c

TRANSOM LIFTERS

Used in connection with transoms hinged at top, bottom or pivoted in the middle. By means of this lifter transoms can be opened or locked at any angle, affording ample means of ventilation. Strong and durable.
4-Z-3519. Plain Coppered Finish.
Length, feet.... 3 4 5
Price, each.....35c 39c 63c
4-Z-3521. Electro Bronze Plated.
Length, feet.... 3 4 5
Price, each.....55c 70c 80c

HOOK SASH LIFTS

Splendid quality, heavy and high grade. Finely finished and made with bevel edges. Size, 1½ inches. Screws to match.

GENUINE WROUGHT BRONZE METAL

4-Z-3523. Antique Copper. Polished. Each6c
4-Z-3525. Lemon Brass Finish. Each.....6c

ELECTRO BRONZE PLATED WROUGHT STEEL

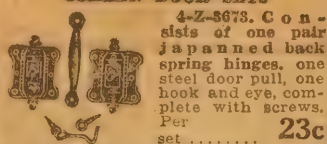
4-Z-3527. Antique Copper. Polished. Each3c
4-Z-3529. Lemon Brass Finish. Each.....3c

FLUSHED SASH LIFTS

Made of wrought steel, bronze plated. Size, 1½x3¼ inches. Complete with screws.
4-Z-3567. Antique Copper. Each.....5c
4-Z-3569. Lemon Brass. Each.....5c

GENERAL HARDWARE AT A SAVING

SCREEN DOOR SETS



4-Z-3673. Consists of one pair japanned back spring hinges, one steel door pull, one hook and eye, complete with screws. Per set..... 23c

SCREEN DOOR CATCHES



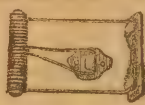
4-Z-3675. Vienna bronze finish for doors $\frac{3}{4}$ to $1\frac{1}{2}$ inches thick. To be used on doors opening outwards. Furnished complete with stop, knobs and screws. Per set..... 27c

4-Z-3677. Electro bronze plated raised surface, dull background. Complete with stops, knobs and screws. Per set..... 37c



SCREEN DOOR HINGES

4-Z-3679. Hold back spring hinges, the strongest and best manufactured. Japanned case. Screws not furnished. 18c



WARNER SCREEN DOOR HINGES

4-Z-3685. Made of heavy spring steel wire, copper plated. 81 $\frac{1}{2}$ c Each

BRASS PICTURE CHAINS WITH HOOKS



4-Z-3686. For light picture frames. Length, 36 inches. Can be easily shortened. Per pair..... 15c

BRIGHT BRAIDED PICTURE WIRE



4-Z-3689. Heavily tinned. Coils guaranteed to contain full 75 feet. Per coil..... 14c

BRIGHT WIRE SCREW EYES



4-Z-3850. Gimlet Pointed Screws. Perfectly formed eyes.

Size	Length	Per Dozen
No.	Inches	
106	2	14c
108	1 $\frac{1}{2}$	9c
110	1 $\frac{1}{2}$	8c
112	1 $\frac{1}{2}$	7c
114	1	6c
214	$\frac{1}{2}$	6c

BRIGHT WIRE SCREW HOOKS

Full size, perfectly pointed. In ordering, be sure to state number and length required; also if straight or bent Hooks



Length Inch	Straight		Bent	
	Pattern	Dozen	Pattern	Dozen
1 $\frac{1}{2}$	6c	4 $\frac{1}{2}$ c		
1 $\frac{1}{2}$	7 $\frac{1}{2}$ c	7c		
2	10 $\frac{1}{2}$ c	9 $\frac{1}{2}$ c		
2 $\frac{1}{2}$	12c	10 $\frac{1}{2}$ c		
3	18c	16 $\frac{1}{2}$ c		
3 $\frac{1}{2}$	42c	36c		

SCREW AND CUP HOOKS



Polished Brass, Full Size. Either kind same price. Be sure to state Number and Size required.

4-Z-3853. Screw Hooks.

4-Z-3854. Cup Hooks.

Size, In.	Per Doz.
$\frac{1}{2}$	17c
$\frac{3}{8}$	18c
$\frac{1}{4}$	19c
$\frac{3}{16}$	20c
1	21c

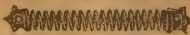
ORNAMENTAL THUMB LATCHES AND HANDLES

4-Z-3683

Bronze finish. For doors $\frac{3}{4}$ to $1\frac{1}{2}$ inches thick. Complete with screws. Each.... 17c



SPIRAL DOOR SPRINGS



4-Z-3688. Made from special grade highly tempered steel wire fastened securely to the brackets and spring holder. Adjustable Length, 10 in. Price, each..... 18c

TORREY'S READY DOOR SPRING

4-Z-3681. Steel rod door spring. Furnished with a special wrench with each set for adjusting tension. Length 3 inches. Each..... 24c

ELECTRO PLATED DOOR PULLS

4-Z-3687. Wrought steel, antique copper finish. Strong, durable and well made. Will give long and continued service. Length $4\frac{1}{2}$ inches. Each..... 21 $\frac{1}{2}$ c

DOUBLE PATTERN COAT, HAT AND UMBRELLA HOOK



4-Z-3665. Double pattern. Height, 9 inches. Projects from wall $4\frac{1}{2}$ inches. Spread 10 inches. Each..... 54c



CLOSET AND WARDROBE HOOKS

4-Z-3669. Made from heavy copper plated plain steel wire. Will not rust. Gimlet pointed screws. Length 3 inches. Per dozen..... 20c



COAT AND HAT HOOKS

4-Z-3667. Made of copper plated spring steel wire. Gimlet pointed screws. Length, 3 inches. Per dozen..... 15c



4-Z-3674. Japanned Iron, a strong, durable hook with screw end. Quickly and easily put up without the aid of tools. Serviceable and satisfactory. Per dozen..... 19c



4-Z-3671. Heavy Iron Hooks. Suitable for schools and public coat rooms. Japanned finish. Strong and durable. Length, 3 inches. Per dozen..... 50c



4-Z-3663. Electro polished antique copper finish. Screws to match. 7-in. high from wall 4 in. Each..... 25c

CAST IRON FOOT SCRAPER

Japanned finish. 4-Z-3661. Each..... 8c



STEEL FOOT SCRAPER 4-Z-3635. Strongest, most rigid foot scraper made. Length, 8 inches; height, 2 inches. Each..... 12c

BOX OR TRUCK CASTERS

4-Z-3801. Heavy Iron Stationary Box or Truck Casters. Strong and substantial. Price does not include screws.

3-in. Wheel. Each..... 40c
4-in. Wheel. Each..... 55c

SWIVEL IRON BOX OR TRUCK CASTERS

4-Z-3803. 3-in. Wheel. Each..... 45c
4-in. Wheel. Each..... 60c

ROLLER BEARING IRON BOX OR TRUCK CASTERS

For Trucks, Boxes, Chests or any other purpose where a Strong, Heavy Caster is required.

Size of Wheel	Size of Plate	Per Set of Four
4-Z-3805. 1 $\frac{1}{2}$	1 $\frac{1}{2}$ x2	\$0.68
4-Z-3806. 1 $\frac{1}{2}$	1 $\frac{1}{2}$ x2	.82
4-Z-3807. 1 $\frac{1}{2}$	1 $\frac{1}{2}$ x3	1.05
4-Z-3808. 2 $\frac{1}{4}$	2 $\frac{1}{4}$ x3 $\frac{1}{2}$	1.38
4-Z-3809. 2 $\frac{1}{2}$	3 x1 $\frac{1}{2}$	3.00
4-Z-3810. 3 $\frac{1}{2}$	3 $\frac{1}{2}$ x4 $\frac{1}{2}$	4.40

WROUGHT STEEL ELECTRO COPPER PLATED BARREL BOLTS

Complete with screws to match.

4-Z-3857. Old or Lemon Brass Finish. Length, inches..... 4 5
Each..... 18c 22c

"FAULTLESS" PHILADELPHIA SHORT STEM STEEL HORN CASTERS

4-Z-3815. Faultless Philadelphia Short Stem Steel Horn Casters. $\frac{5}{8}$ x1 $\frac{1}{2}$ inch sockets; hard maple wheels.

Size, Wheel, inches..... 1 $\frac{1}{2}$ 1 $\frac{1}{2}$ 1 $\frac{1}{2}$
Price, per set..... 21c 24c 26c

4-Z-3816. Lignum Vitae Wheel. Size, Wheel, inches..... 1 $\frac{1}{2}$ 1 $\frac{1}{2}$ 1 $\frac{1}{2}$
Price, per set..... 24c 28c 32c

"FAULTLESS" BED CASTERS

Faultless Bed Casters and Sockets for Iron Beds. Steel horn, maple wheels.

4-Z-3817. To fit Tubing $\frac{3}{4}$ in. Outside Diameter.

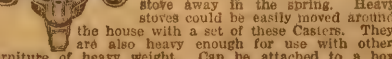
Size of wheel, 1 $\frac{1}{2}$ in. Price, per set..... 33c

4-Z-3818. To fit Tubing 1 in. Outside Diameter.

Size of wheel, 1 $\frac{3}{4}$ in. Price, per set..... 40c

4-Z-3819. To fit tubing 1 $\frac{1}{8}$ in. Outside Diameter.

Size of wheel, 1 $\frac{1}{2}$ in. Price, per set..... 44c



STOVE OR FURNITURE CASTER

Just the thing for putting your stove away in the spring. Heavy stoves could be easily moved around the house with a set of these Casters. They are also heavy enough for use with other furniture of heavy weight. Can be attached to a box or platform.

4-Z-3829. Price, per set of 4..... \$1.70

BED CASTERS

4-Z-3821. Bed Casters, Iron Copper Bronze. 1 $\frac{1}{2}$ in. in diameter. Per set of 4..... 28c

4-Z-3822. Bed Casters. 1 $\frac{1}{2}$ in. porcelain wheel. Per set of 4..... 24c

4-Z-3823. Bed Casters. Applewood wheels. 2 in. in diameter. Per set of 4..... 26c

FURNITURE CASTERS, PHILADELPHIA PATTERN

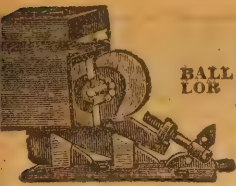
4-Z-3828. Furniture Casters. Philadelphia Pattern. $\frac{3}{4}$ in. in diameter. Strong and durable. Per set of 4..... 14c

ANTI-FRICTION ROLLER BEARING CASTERS

Revolves upon a Series of Steel Rollers or Discs. Saves wear and tear on carpets; does not mar the floors.

Size of Wheel, In.	Set of Four
4-Z-3811. 1 $\frac{1}{2}$	\$0.65
4-Z-3812. 1 $\frac{1}{2}$	.80
4-Z-3813. 1 $\frac{1}{2}$	1.00
4-Z-3814. 1 $\frac{1}{2}$	1.35

Premier Warranted Files and Hardware Bargains



BALL BEARING PARLOR DOOR HANGERS AND TRACK

Full ball bearing nicely vulcanized fibre wheels, hangers are made of steel, and are easily adjustable. The track is of special cold rolled steel, rigid and firm. Full directions with each set. Prices are for hangers complete with track.

4-Z-3701. For double doors.
Size in feet..... 4 5 6 7
Price, per set.....\$5.30 \$6.25 \$6.85 \$7.55

4-Z-3703. For single doors.
Size in feet..... 3 4 5 6
Price, per set.....\$3.60 \$4.15 \$4.70 \$5.25

LIBRETTREAD NOISELESS BALL BEARING DOOR HANGERS AND TRACK

Made entirely of steel with full ball-bearing fibre tread files. Furnished complete with hangers, track and all necessary fixtures. Heaviest and strongest hanger on the market.



4-Z-3705. For double doors, complete with 14 ft. of steel track fixtures. \$5.95

4-Z-3707. For single doors, complete with 8 ft. of track and fixtures. Per set.....\$5.60

WROUGHT STEEL FLAT CORNER IRON

Length of Sides.	Width.	Price Per Doz.
2 1/2 in.	1/4 in.	27c
3 in.	1/2 in.	29c
3 in.	3/4 in.	38c
4 in.	1 in.	42c

Less screws.

WROUGHT STEEL MENDING PLATES

Length.	Width.	Price Per Doz.
2 in.	1/4 in.	25c
3 in.	1/2 in.	35c
4 in.	3/4 in.	45c

Less screws.

WROUGHT STEEL CORNER IRON

Length of Sides.	Width.	Price Per Doz.
1 in.	1/4 in.	25c
1 1/2 in.	1/2 in.	29c
2 in.	3/4 in.	38c
2 1/2 in.	1 in.	45c
3 in.	1 1/4 in.	50c

Less screws.

CARPENTERS' WRECKING BARS

A handy, durable bar for nail pulling, ripping shingles, prying boards, etc. drop forged, 3/4 in. octagon steel, claw end, and wedge points on other. Length, 60 in. shipping weight, 5 lbs.

4-Z-2560. Price, each..... 39c

4-Z-2561. 2 1/2 in. Price..... 30c

4-Z-2562. 1 1/2 in. Price..... 26c

Huntington Pattern Emery Wheel Dresser

This Emery wheel dresser is used for purpose of truing, shaping and removing glaze from emery wheel while running at full speed. This tool will entirely remove glaze, thereby causing the emery wheel to grind properly.

4-Z-2602. Price with two sets of cutters..... 70c

4-Z-2666. Extra cutters, per set..... 8c

HOLLOW HANDLE AWL SET

Hollow hardwood handle 5 inches long, containing 50 ft. best waxed linen shoe thread, 3 awls and 5 needles, assorted sizes.

4-Z-4539. Price..... 80c

The best cutting and most satisfactory files manufactured. Made of special crucible steel, carefully hardened and tempered.

MILL FILES SQUARE EDGE

4-Z-4501.
Lgth. in. 4 6 8 10 12 14 16
Price, ea. \$0.13 \$0.14 \$0.15 \$0.22 \$0.29 \$0.41 \$0.57

FLAT BASTARD FILES

4-Z-4502.
In. 4 5 6 8 10 12 14 16
Ea. \$0.14 \$0.15 \$0.17 \$0.19 \$0.27 \$0.37 \$0.51 \$0.69

HALF ROUND BASTARD FILES

4-Z-4505.
Length, inch. 6 8 10 12 14
Each \$0.24 \$0.29 \$0.35 \$0.45 \$0.60

ROUND BASTARD FILES

4-Z-4507.
Length, inch. 4 5 6 8 10 12
Price, each. \$0.12 \$0.13 \$0.14 \$0.17 \$0.21 \$0.29

SQUARE BASTARD FILES

4-Z-4509.
Length, inch. 4 5 6 8 10 12
Price, each. \$0.15 \$0.16 \$0.18 \$0.21 \$0.28 \$0.39

MILL FILES WITH ONE ROUND EDGE

4-Z-4511.
Length, inch. 8 10 12 14
Price, each. \$0.16 \$0.24 \$0.32 \$0.46

TAPER SAW FILES, SINGLE CUT

4-Z-4513.
Length, inch. 8 10 12 14 16 18
Each \$0.08 \$0.09 \$0.10 \$0.13 \$0.16 \$0.20

SLIM TAPER SAW FILES, SINGLE CUT

4-Z-4515.
Length, inch. 3 4 5 6 7 8
Each \$0.03 \$0.04 \$0.05 \$0.06 \$0.07 \$0.17

CANT SAW FILE

4-Z-4517.
Length, inch. 5 6 7 8
Each \$0.15 \$0.21 \$0.25 \$0.34

PREMIER AUGER BIT FILE

4-Z-4519.
Suitable for filing any size auger bit without filing the screw or lip. Will save auger bits.
Each \$0.16

HALF ROUND WOOD RASP

4-Z-4521.
Length, inch. 8 10 12 14
Each \$0.40 \$0.47 \$0.70 \$0.90

STEEL WIRE FILE CLEANER

4-Z-4538. Made with steel wire bristle. Price. \$0.14

WOOD FILE HANDLES

4-Z-4537. Furnished in three sizes, large, medium and small. Be sure and give size wanted when ordering.
Price, each. \$0.05

Interchangeable File and Tool Holder

Will hold files and tools square, round or flat shank, smaller than 3/4 inch.
4-Z-2608. Price, each. \$0.19

WROUGHT STEEL PADLOCK

Heavily brass plated with self locking spring shackle, 6 screw levers, 2 double fitted barrel keys.
4-Z-3757. Price..... 40c



3-LEVER BRASS PADLOCK



For outside use, heavy spring shackle, self locking, 2 flat steel keys.
4-Z-3753. Price..... 55c

IRONIC BICYCLE LOCK

Extra strong shackle and bolts, self locking spring shackle furnished with 10-in. nickel plated steel chain, with solid steel ring; 2 keys. A strictly first class lock.



4-Z-3745. Price..... 50c

SOLID STEEL PADLOCK



Stronger and more durable than the old steel rod iron padlock. Case is made of annealed steel, contains no rivets or loose parts. Japan finish polish shackles, with 2 keys.

4-Z-3725. Price, each 18c

6-LEVER WROUGHT STEEL

Solid rod steel, case heavily brass plated, and handsomely finished; six screw levers, all brass inside work; self locking spring shackle, 2 flat steel keys.



4-Z-3739. Price, each..... 50c

MURAL MAIL BRASS PADLOCK

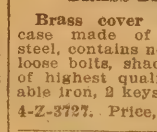


Solid hard brass inside works. Will not rust or corrode. Automatic spring shackle. Price includes 2 keys with each lock. One master key for use of mail carrier furnished with each dozen locks.

4-Z-3747. Price, ea. 55c

4-Z-3749. With 8 inch brass chain. Price, ea. 69c

STEEL LOCK WITH BRASS DROP



Brass cover key hole, case made of annealed steel, contains no rivets or loose bolts, shackle made of highest quality malleable iron, 2 keys.

4-Z-3727. Price, ea. 27c

ORNAMENTAL STEEL LOCK



One of our best values, ornamental brass plated, steel case, strong spring shackle, self locking, with 2 flat steel keys.

4-Z-3729. Price..... 25c

8-LEVER RUST-PROOF STEEL

Heavily brass plated with heavy self locking spring shackle, 8 screw levers, 2 double heated barrel keys, and strong durable lock. An exceptional value.



4-Z-3755. Price..... 80c

PREMIER CIRCULAR SAWS

The Steel All premier circular saws are made of the highest grade crucible steel. The steel is subjected to severe tests before we allow it to be used. Every saw represents the highest art of the chemist and scientist, and is absolutely the finest material manufactured in the most thorough process known. The toughness and perfect temper together with the precise tensile strength of these saws have earned them a national reputation.

Our Factory The factory which produces Premier saws is one of the most modern and scientific in the world. Every blade is inspected by an expert, placed on a mandrel and tested for any variation at double the speed it will ever be used. The grinding is accurately done on huge precision machines which makes each saw true to gauge and smooth surfaced—thereby increasing its cutting qualities. The filing and finishing are likewise done by experts by hand, a process which prevents blueness or case-hardening at the points—the cause of breakage.

Guarantee

Do not use a cold chisel or punch for retreating a saw. It is certain to twist or crack the blade. Filing the corners square in the gullet will frequently produce the same disastrous result. By all means do not re-sharpen saw when the temperature is low. Our guarantee does not cover saws breaking from any of the causes. We guarantee these saws to be crucible steel perfect manufactured. We guarantee them against any defects in the saw proper—provided they are not subjected to improper usage.

Satisfaction

Our Premier saws have given satisfaction for long and continued service to users all over the United States. The prices you will notice are undoubtedly the greatest bargain offers ever made on such high-grade "quality" saws—brar new, finest crucible steel, hand filed, expert tested, latest pattern. They cut straight and true, don't dodge knots nor wobble off the line.

Be sure to state diameter, gauge, hole, lot No., whether rip or cut-off saw, whether for left or right-hand mill.

Diam-	Thick-	Ship-	Price
eter	ness	ping	
Gauge	Size	Weight	
Hole			
4 19'	3/4	4 oz...	\$.90
6 18	3/4	7 oz...	1.35
8 18	3/4	1 lb...	1.80
10 16	1	2 1/2 lbs.	2.50
12 15	1	4 lbs...	3.30
14 14	1 1/2	6 lbs...	3.95
16 14	1 1/2	8 lbs...	4.50
18 13	1 1/2	10 lbs...	6.00
20 13	1 1/2	12 lbs...	7.15
22 12	1 1/2	15 lbs...	8.65
24 11	1 1/2	20 lbs...	10.13
26 11	1 1/2	24 lbs...	12.00
28 10	1 1/2	28 lbs...	13.85
30 10	1 1/2	33 lbs...	15.75
32 10	1 1/2	35 lbs...	18.00

Diam-	Thick-	Ship-	Price
eter	ness	ping	
Gauge	Size	Weight	
Hole			
34 9	1 1/2	50 lbs.	\$ 20.25
36 9	1 1/2	65 lbs.	23.25
38 9	1 1/2	92 lbs.	37.30
40 9	2	102 lbs.	43.40
42 8	2	110 lbs.	43.70
44 8	2	120 lbs.	58.10
46 8	2	130 lbs.	68.60
48 8	2	137 lbs.	78.40
50 7	2	155 lbs.	88.90
52 7	2	168 lbs.	99.40
54 7	2	175 lbs.	109.90
56 7	2	182 lbs.	126.00
58 7	2	190 lbs.	140.00
60 6	2	205 lbs.	156.80



Lot
4-Z-4203

SOLID-TOOTH CUT-OFF SAW



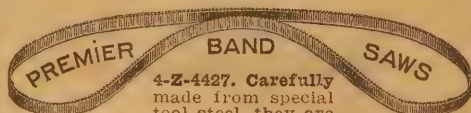
Lot
4-Z-4201

SOLID TOOTH RIP SAW

ABOUT SHIPMENT!

We can ship saws up to 40 inch in size. We do not list any special sizes here, but can secure them to order and will make delivery promptly. Write us for prices on special saws.

PREMIER BAND SAW BLADES



4-Z-4427. Carefully made from special tool steel, they are extra flexible and made to stand hard usage. We furnish them in numerous lengths and gauges as listed below:

Width	No.	Length, feet					
Inches	Gauge	10	12	14	16	18	20
1/4	21 or 22	\$2.20	\$2.64	\$3.08	\$3.52	\$3.96	\$4.40
3/8	21 or 22	2.50	3.00	3.50	4.00	4.50	5.00
1/2	21 or 22	2.80	3.36	3.92	4.48	5.04	5.60
3/4	21 or 22	3.50	4.20	4.90	5.60	6.30	7.00
1	21 or 22	3.80	4.56	5.32	6.08	6.84	7.60
1 1/2	20 or 19	4.80	5.76	6.72	7.68	8.64	9.60

FOR LENGTHS DIFFERENT FROM THOSE LISTED take price of the next longer length. Prices quoted above are F. O. B. cars our factory. Postage on the different Saws will be as follows:
Widths, 1/4-inch, 1/2c per foot; widths, 3/8 or 1/2-inch, 1c per foot; widths, 3/4 or 1-inch, 1 1/2c per foot; widths, 1-inch, 2c per foot. In ordering saws, allow for postage.

POINTS AND HOLDERS FOR PREMIER INSERTED TOOL CIRCULAR SAWS

Your attention is called to the shoulder supporting the tool which does not depend upon the rim for support as other inserted tool saws do. This style of tool is adapted for high speed saw mills as the only tool made that will run on an 8 or 12-inch feed.

4-Z-4207. Extra Fine Steel Bits only.

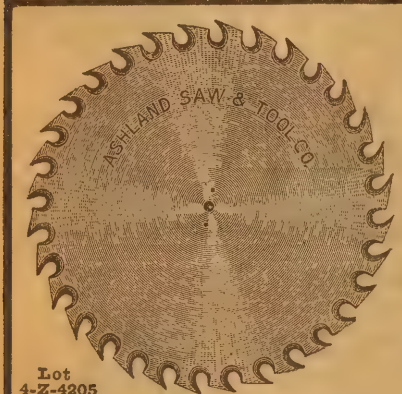
Per hundred.....\$7.00 Each.....80

4-Z-4209. Drop Forged Extra Holder for Points.

Each.....500

4-Z-4211. Premier Inserted Tool Wrench.

Price each.....\$1.35



Lot
4-Z-4205

INSERTED-TOOTH SAWS

The mandrel holes on the rough plates are 2 in. in diam., with 2 1/4 in. pin holes spaced 3 in. center to center. When ordering be sure to state number of teeth wanted, diameter, gauge at center and at rim, horsepower of engine, r.p.m. while cutting, rip or cross-cut, right or left hand mill. No cancellation of order. One full set of extra Teeth, two Shanks and one Wrench furnished with each saw. Can furnish one gauge heavier or lighter, for same price.

Diameter	Gauge	Size (No. of	Price,
Inches		of hole)Teeth	Each
40	8	28	\$ 86.00
42	8	28	92.00
44	8	30	101.00
46	8	30	110.00
48	8	32	122.85
50	8	34	135.00
52	7	36	150.00
54	7	38	168.90
56	7	40	190.00
58	7	42	207.00
60	7	42	230.00



Lot
4-Z-4213

CORDWOOD AND POLE SAWS

The Premier circular cordwood and pole saws are made especially for cutting cordwood and poles. They are natural Oil Temper finish. Manufactured by the same expert mechanics and of the same high grade material used in all other Premier saws. They are ground, hand filed, set and sharpened for the use intended, but are not constructed for high speed work.

Our bargain prices on these saws are unbeatable. You can't get an equally serviceable, strong saw at anywhere near our great money saving offer.

Any size saw and mandrel hole on saws furnished direct from factory if specified; otherwise we ship saws with 1 1/2" mandrel hole.

Diameter,	Gauge	Size hole,	Price
Inches	No.	Inches	
20	13	1 1/2	\$3.60
22	12	1 1/2	4.20
24	11	1 1/2	4.95
26	10	1 1/2	5.70
28	10	1 1/2	6.75
30	10	1 1/2	7.65

PREMIER CROSS-CUT SAWS

PREMIER PERFORATED LANCE TOOTH CROSS-CUT SAWS

4-Z-4101. A general favorite with the lumbermen. Thin back, ground gauges thinner on back than on cutting edge. An easy and fast cutter. Will not bind in the timber. Each saw most carefully tempered, filed and hand set. Guaranteed fully in every particular. Prices do not include handles.

Length, feet	5	5½	6	6½	7
Price	\$3.64	\$4.00	\$4.88	\$4.75	\$5.11

PREMIER CHAMPION TOOTH WIDE CROSS-CUT SAW

4-Z-4103. Taper ground, thin back, set and sharpened. A strictly first class saw, fully warranted. Prices do not include handles.

Length, feet	5	5½	6	6½	7
Price	\$3.22	\$3.54	\$3.86	\$4.19	\$4.51

PREMIER CHAMPION TOOTH NARROW CROSS-CUT SAW

4-Z-4105. Properly tempered, set and sharpened. Each saw fully warranted. Prices do not include handles.

Length, feet	5	5½	6	6½	7
Price	\$1.75	\$1.93	\$2.10	\$2.23	

PREMIER CHAMPION TOOTH ONE-MAN STRAIGHT BACK CROSS-CUT SAWS (With Supplementary Handle.)

4-Z-4107. Ground two gauges thinner on back than on cutting edge. Fitted with supplementary handle. You cannot buy a better saw at any price. Guaranteed to give entire satisfaction.

Length, feet	3	3½	4	4½	5
Price	\$2.00	\$2.35	\$2.68	\$3.00	\$3.35

PREMIER AMERICAN TOOTH ONE-MAN STRAIGHT BACK CROSS-CUT SAW (With Supplementary Handle.)

4-Z-4109. Taper ground, thin back. Hand set and filed. A good cutting saw that will give excellent service. Fully warranted.

Length, feet	3	3½	4	4½	5
Price	\$2.10	\$2.45	\$2.80	\$3.15	\$3.50

BUCK SAWS



\$2.10

4-Z-4111. Selected hardwood frame. Painted red. With tuned rod, blue clock spring blade, 2½ inches wide, properly tempered, "V" shaped teeth, set and sharpened, ready for use. Fully warranted. Price..... \$2.10

4-Z-4113. Extra blades. Price each, 60c



\$1.70

4-Z-4115. Selected Maplewood Frame with Double Riveted Brace, Varnished Natural Color. Heavy "tuned rod" clock spring blade, finely tempered, taper ground, extra thin back, "V" shaped teeth, hand filed and set. Ready for use. An easy running saw. Guaranteed to give entire satisfaction. Price..... \$1.70

4-Z-4117. Extra blades, width 1½ inches. Price..... 50c

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.



\$2.40

4-Z-4119. Extra high grade fast cutting Buck Saw. Selected hard maple frame, solid one-piece brace, painted red, extra heavy, strong tuned rod. Champion tooth, extra thin back, clock spring blade, perfectly tempered, hand filed and set. Ready for use. A better saw cannot be made. Price..... \$2.40

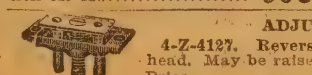
4-Z-4121. Extra blades. Price..... 70c

GENUINE AIKENS' SAW SETS

4-Z-4123. Genuine Aikens' Pattern Hammer Saw Set. Made of the highest grade forged steel... \$1.00

WHITING PATTERN SAW SET

4-Z-4125. Highest grade steel, properly tempered. Suitable for any kind of cross-cut saw..... 60c



4-Z-4127. Reversible screw adjustment. Cast steel head. May be raised by means of adjusting screw. Price..... 67c

Made of High Grade Special Saw Steel, unequalled in material, workmanship and temper. Premier Cross-Cut Saws are accurately ground, filed and hand set. Each saw is closely inspected and tested at the factory before shipment. They are the fastest cutting and easiest running saws manufactured. All saws are sharpened, ready for use. We guarantee every saw to give perfect satisfaction or money refunded.

PREMIER DIAMOND TOOTH CROSS-CUT SAWS

4-Z-4129. Ground to a true taper. 4 gauges thinner on back than on cutting edge. Prices do not include handles. Fully warranted.

Length, feet	5	5½	6	6½	7
Price	\$3.62	\$3.98	\$4.36	\$4.73	\$5.09

PREMIER PLAIN TOOTH CROSS-CUT SAWS

4-Z-4131. Taper ground, thin back. Fully warranted. Prices do not include handles.

Length, feet	5	5½	6	6½	7
Price	\$3.22	\$3.54	\$3.86	\$4.18	\$4.50

PREMIER CHAMPION TOOTH FELLING SAW

4-Z-4133. The best felling saw made. Fully warranted. Prices do not include handles.

Length, feet	5	5½	6	6½	7
Price	\$3.20	\$3.52	\$3.84	\$4.16	\$4.48

PREMIER PERFORATED LANCE TOOTH ONE-MAN STRAIGHT BACK CROSS-CUT SAWS

4-Z-4135. Ground Four Gauges Thinner on back than on cutting edge. The most popular and fastest cutting saw manufactured. Fully warranted.

Length, feet	3	3½	4	4½	5
Price	\$2.19	\$2.56	\$2.92	\$3.29	\$3.65

AMERICAN TOOTH ONE-MAN SKEW BACK CROSS-CUT SAW

4-Z-4137. Taper ground, thin back, properly tempered and hand set and filed.

Length, feet	3	3½	4	4½	5
Price	\$2.12	\$2.47	\$2.82	\$3.17	\$3.52

HAND ICE SAW

4-Z-4139. For wagon use. Extra crucible steel blade, fitted with iron handles. Each saw is properly tempered and fully guaranteed.

Length, inches	24	26	28	30
Price, each	\$1.25	\$1.34	\$1.45	\$1.55

POND ICE SAWS

4-Z-4141. Superior quality. Made of the best crucible saw steel, properly tempered, tapering, 7 inches at the butt and 5 inches wide at the point. Fully warranted.

Length, feet	4	4½	5
Price, complete with tiller handle	\$4.87	\$5.30	\$5.77

ONE MAN CROSS-CUT SAW HANDLES

4-Z-4143. Selected Beechwood. Varnished Edges. Without Screws..... 28c
4-Z-4145. Supplementary Handles, with Rivet. Each..... 20c

CROSS-CUT SAW HANDLES

4-Z-4149. Loop Pattern. For two-man cross-cut saw. Per pair..... 28c
4-Z-4151. Reversible Pattern. Per pair..... 35c

STEEL ICE TONGS

4-Z-4147. Drop Forged Steel. Suitable for family and wagon use. Constructed in a superior manner and will handle 200 pounds.... \$1.20

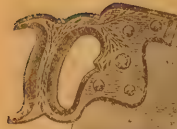
ADJUSTABLE BENCH STOP

4-Z-4153 Instantly adjustable to any position. Reversible head can be raised 2 inches above bench. Price..... 70c

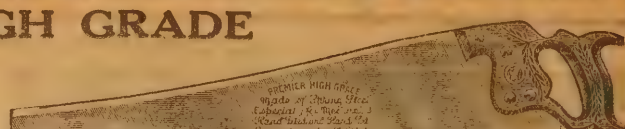
Do You Intend To Build? Our Architects Are At Your Service

"PREMIER" HAND SAWS

EXTRA HIGH GRADE



PREMIER HIGH GRADE
made of Spring Steel
Superiority for mechanics
Hand blades come full
guaranteed entire satisfaction
ASHLAND SAW CO.
CHICAGO, ILL.



PREMIER HIGH GRADE
made of Spring Steel
Superiority for mechanics
Hand blades come full
guaranteed entire satisfaction
ASHLAND SAW CO.
CHICAGO, ILL.

PREMIER HAND SAWS

Premier Saws are hand made, hand smithed, hand blocked, hand filed and hand set. The material, workmanship and finish is far superior to the popular brand saws. Every detail in the manufacture is perfect and no saw leaves the factory that is not carefully inspected and tested. We want your saw orders and fully realize that in face of competition we must furnish a saw that will be entirely satisfactory to the most critical mechanic. Premier Hand Saws will do this, as they are made in the most careful and approved manner by the best sawsmiths in the trade.

4-Z-4801. Premier extra high grade straight back, panel or hand saws.

Length	Points to the inch	Each
18" panel..	9, 10, 11 or 12	\$2.00
20" panel..	9, 10, 11 or 12	2.10
22" panel..	9, 10, 11 or 12	2.20
24" hand..	8, 9, 10 or 11	2.30
26" hand..	7, 8, 9, 10 or 11	2.45
28" hand..	6, 7 or 8	2.75

4-Z-4803. Premier extra high grade, straight back, Rip saws.

Length	Points to the inch	Each
24" 5, 5 1/2, 6 or 6 1/2		\$2.30
26" 5, 5 1/2 or 6		2.45
28" 4, 4 1/2, 5, 5 1/2 or 6		2.75
30" 4 1/2 or 5		3.00

WARRANTED

to give satisfaction or they can be returned to us and the full purchase price will promptly refunded. The blades are of special refined spring steel perfectly tempered, full taper ground, thin back. The teeth are full beveled, hand filed and hand set and will hold a fast cutting edge; will not bind and will run with very little set. The handles are correct in shape giving the proper hang. Made of selected, seasoned apple wood. 26 and 28-inch saws have five brass screws and the smaller sizes have four. Each Premier Hand Saw is fully warranted and is recommended for use by the mechanic and those who appreciate a good tool.

4-Z-4823. Premier extra high grade skew back, panel or hand saws.

Length	Points to the inch	Each
18" panel..	9, 10, 11 or 12	\$2.00
20" panel..	9, 10, 11 or 12	2.10
22" panel..	9, 10, 11 or 12	2.20
24" hand..	8, 9, 10 or 11	2.30
26" hand..	7, 8, 9, 10 or 11	2.45
28" hand..	6, 7 or 8	2.75

4-Z-4825. Skew Back Premier extra high grade Rip saws.

Length	Points to the inch	Each
24" 5, 5 1/2, 6 or 6 1/2		\$2.30
26" 5, 5 1/2 or 6		2.45
28" 4, 4 1/2, 5, 5 1/2 or 6		2.75

"Chicago Special" Hand Saws

The best general purpose Saw ever offered. Made of high grade crucible saw steel, smithed and blocked by hand. Full taper ground, thin back. Teeth are full beveled, hand filed and hand set, ready for use. Strictly first class in every particular and are used largely by mechanics, who find them superior to saws sold elsewhere at prices ranging from \$2.25 to \$2.75. Selected cherry handles. Four brass screws. Made only with wide straight back thin ground



4-Z-4805. Chicago Special panel or hand saws.

Length	Points to the inch	Each
18" panel..	9, 10, 11 or 12	\$1.80
20" panel..	9, 10, 11 or 12	1.90
22" panel..	9, 10, 11 or 12	2.00
24" hand..	8, 9, 10 or 11	2.10
26" hand..	7, 8, 9, 10 or 11	2.15
28" hand..	6, 7 or 8	2.40

4-Z-4807.

Chicago Special Rip Saws.

Length	Points to the inch	Each
24" 5, 5 1/2, 6 or 6 1/2		\$2.10
26" 5, 5 1/2 or 6		2.15
28" 4, 4 1/2, 5, 5 1/2 or 6		2.40

Favorite Hand Saws

Made of good grade saw steel, set sharpened and ready for use. Hardwood handle, brass screws. A saw which will give excellent satisfaction for house and general use. It is not intended for carpenters' or mechanics' use.



4-Z-4809. Favorite panel or hand saws.

Length	Points to the inch	Each
22-inch panel, 10 or 12 points to the inch. Price.....		\$1.20
24-inch hand, 8, 9 or 10 points to the inch. Price.....		\$1.30
26-inch hand, 8, 9 or 10 points to the inch. Price.....		\$1.40

4-Z-4811. Favorite rip saws.

Length	Points to the inch	Each
26-inch rip, 5 1/2 or 6 points to the inch. Price.....		\$1.40
28-inch rip, 5, 5 1/2 or 6 points to the inch. Price.....		\$1.60

Common Compass Saws



4-Z-4813. Made of good grade cast steel. Spring tempered, filed and set. Beechwood handles.

Length, inches	12	14
Price	26c	28c

High Grade Compass Saws



4-Z-4815. Thin back evenly tempered. Full bevel, filed and set. Beechwood handle, two screws.

Length, inches	12	14	16
Price	50c	55c	60c

Steel Frame Coping Saw



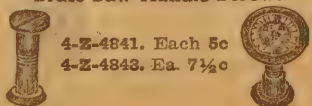
4-Z-4817. Nickel plated steel frame. Depth of cut 4 ins. Complete with 13 6-inch tempered steel blades. Price...28c

Beechwood Saw Handles

4-Z-4819. For Hand and Rip Saws. Price, each....25c

4-Z-4821. For Panel Saws. Each

Brass Saw Handle Screws



4-Z-4841. Each 5c
4-Z-4843. Ea. 7 1/2c

C. E. Jennings & Co.'s No. 70 1/2 Narrow Blade Hand Saws

Ground thin on back and guaranteed to run without set. The special grinding on this saw is such that assists it to run without set. Full concave taper ground and adapted for rapid, smooth cutting.



Blade is of special saw steel, strictly hand made and is very popular with carpenters.

4-Z-4827. Jennings' No. 70 1/2 panel or hand saws.

Length	Points to the inch	Each
22" panel..	10, 11 or 12	\$3.50
24" hand..	8, 9 or 10	3.65
26" hand..	7, 8, 9 or 10	3.75

4-Z-4829. Jennings' No. 70 1/2 rip saws.

Length	Points to the inch	Each
26-inch rip..	5 or 6	\$3.80
28-inch rip..	4 1/2, 5 or 5 1/2	4.05

Genuine Henry Disston Hand Saws

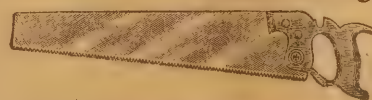
Disston "D" 8 Hand Hammered Saws. The best known popular brand saw on the market. Guaranteed to be strictly first quality and perfect in every particular. Each saw bears the maker's name. Spring steel patent ground and tempered. Skew back, applewood handle. Five improved brass screws.



When ordering be sure and specify the number of points. Price

4-Z-4831. 26-inch Hand Saw, 8, 9, & 10 points. Price	\$5.70
4-Z-4833. 28-inch Rip Saw, 5 or 5 1/2 points. Price	\$6.00

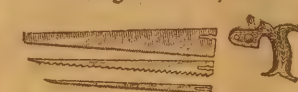
Nail Cutting Saw



4-Z-4835. Will cut nails, pipe, bolts; soft sheet metal. Can be filed but does not require setting, being taper concave ground.

Length of blade, 18 inches	
Price	\$2.50

Jennings Kit of Saws



For Plumbers', Electricians' and Carpenters' use. Consists of one 14-inch nail cutting, one 14-inch compass blade, one 12-inch keyhole blade. Adjustable handle. All blades interchangeable.

4-Z-4837. Price..... \$2.22

Nest of Saws



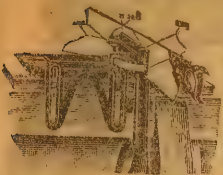
Consisting of one 14-inch panel saw, one 14-inch compass saw, one 12-inch keyhole saw. All interchangeable.

4-Z-4839. Price.... \$1.50

MITER BOXES, SAW SETS AND VISES, HACK SAWS

LITTLE TOOLS THAT SAVE YOU BIG MONEY IN THE LONG RUN

IMPROVED SEAVEY MITER BOX & SAW GUIDE



Adjustable to cut square or at an angle of 22½, 30 and 45 degrees. Panel or hand saw may be used with this guide, thereby doing away with a special saw; especially adapted for cutting moldings of any width or depth. Can be folded and carried in a tool chest.

4-Z-4911. Price without saw..... **\$2.45**

WENTWORTH PATTERN SAW VISE

Flexible rubber cushion between jaws, which prevents vibration and renders saw filing noiseless. Width of Jaws 10½ inches. Weight 6 lbs.

4-Z-4927. Price ea. **\$1.20**



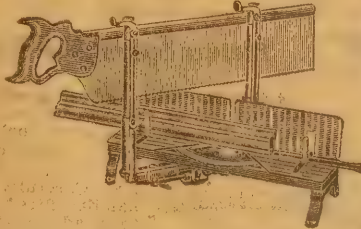
IMPROVED ANVIL SAW SET



With this tool the teeth of the saw can be set with great rapidity and little effort. The lever is on the lower side. The anvil and plunger are hardened. The spring is of tempered steel.

polished Nickel Plated finish, weight 10 oz. **95c**
4-Z-4921. Price each.....

"LANGDON-ACME" MITER BOXES



Langdon Acme Miter boxes possess all the features heretofore embodied in similar styles but with the following improvements: The guides are one inch longer, which holds the saw steady to the highest capacity, has a graded arc in front with the various degrees marked thereon, saws are secured at all times by means of a small thumb lever in front of box provided with lever gage. Polished parts are all Nickel Plated. A high grade guaranteed saw furnished with this outfit. Size No. 1, capacity at right angles 7½, capacity at the Miter 5 inches. Size No. 2, 2½ capacity, at right angles 10½ inches, at Miter 7 inches.

4-Z-4901. Size No. 1 with 24x4 inch saw... **\$16.70**
4-Z-4903. Size No. 2 with 26x4 inch saw... **18.75**
4-Z-4905. Size No. 2½ with 28x5 saw... **20.70**
4-Z-4907. Size No. 2½ with 30x5 saw... **21.45**

COMBINATION CROSS CUT SAW TOOL



Cross cut saw filer jointer tooth gage cutting block, a tool that keeps cross cut saws in perfect condition.

4-Z-4945. Price with file and directions.. **50c**

SAW JOINTER & SKATE SHARPENER

Adjustable to any thickness, saw blade can be used with any file.

4-Z-4917. Price each. **56c**



RIGID EXTENSION HACK SAW FRAME

Heavy steel Nickel Plated frame adjustable to take blade from 6 to 12 inches.

4-Z-4953. Price with one 10-inch blade **\$1.95**



IMPROVED FOOT POWER SAW SET

Will set a saw from the finest tooth to the two men cross cut saw, easily and quickly. This set is operated by means of a treadle leaving the operators' hands free to hold the saw. Stroke of handle is adjusted by means of thumb screw to striking light or heavy blow. With slight practice an inexperienced person can set a saw as perfectly as when it came from factory. 4-Z-4943. Price..... **\$1.40**



PERFECTION PATTERN MITER BOXES

A strong serviceable Miter box made of hardwood with metal guide which can be readily detached and folded to carry in a tool chest. Saw guide can instantly be set at angle 22½, 30 and 45 degrees, back saw, panel or hand saw can be used; for cutting to exact depth use a back saw. Weight, 9 lbs.

4-Z-4909. Price..... **\$3.75**



SAW FILING GUIDE AND VISE

With this device saw filing is made easy. An inexperienced person can file a saw correctly. The ball and socket which connect the clamp to the vise permits the clamp to be turned in either direction. Jaws are 10½ inches rubber faced which holds the saw firmly and deadens the noise. File and guide are adjustable. Price complete with directions. **\$3.50**

4-Z-4949. Price.....



BACK SAWS

These saws are made from good tool steel, with heavy back polished handles with three brass screws, hand filed and set ready for use, each saw fully guaranteed.

4-Z-4915. Length, inch. 10 12 14 16
Price, each... **\$1.55 \$1.80 \$2.03 \$2.30**



ADJUSTABLE SAW VISE

For attachment to work bench this vise has a malleable iron screw clamp and lever and cam to hold it in position. Width of jaws 9½ inches, Japanned finish, weight 4½ lbs.

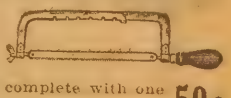
4-Z-4925. Price..... **\$1.05**



EXTENSION NICKEL-PLATED HACK SAW FRAME

Adjustable for blade to be set at four different angles, takes blades 8 to 12 inches.

4-Z-4935. Price, each, complete with one 8-inch blade **50c**



HANDY KIT OF TOOLS

Handy, practical combination of tools, consisting of Keyhole saw and pad, chisel, screw driver, two wrenches, awl, bit handle made of good quality steel.

4-Z-4931. Price per set..... **10c**



MORRELL'S PATTERN SAW SET

Morrell's pattern saw set for handle buck board and jig saw has hardened steel anvil and plunger, tempered steel spring.

4-Z-4919. Price..... **70c**



ADJUSTABLE SPOKE POINTER

4-Z-6851. Made with a Graduated Square Adjustable Shank. Cutter is of high grade tool steel. Points up to 1½ inch in diameter. Each..... **95c**



ADJUSTABLE SAW FILING GUIDE



Used for filing saws with any style, bench vise, can always be used in connection with the regular saw vise, adjustable to file at any angle any level and exact depth. Japanese finish.

4-Z-4947. Price complete with file..... **\$1.87**

BALL & SOCKET SAW VISE

No carpenter nor mechanic should be without this handy tool. It will save many times its original cost inside of a month.

Our price is the lowest of all on similar articles.

The reliable ball and socket saw vise is adjustable with bench clamp and can be set at any angle. Length of Jaws 9½ inches, Japanned finish. Weight 9 lbs.

4-Z-4941. Price each..... **\$1.80**



REVOLVING ECCENTRIC ANVIL SAW SET

Shows the required bevel and length of all saws ranging from 4 to 10 teeth to the inch. Figure on dial indicates number of teeth to the inch, and always in sight. Anvil and Plunger made of hardened steel with tempered steel spring. Weight 10 oz.

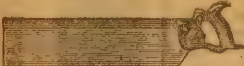
4-Z-4923. Price..... **\$1.20**



MITER BOX SAWS

Made from high grade tool steel, carefully hardened and tempered, evenly ground, hand filed set ready for use, heavy back. Width of blade under back 4 inches.

4-Z-4918. Length, inch..... 22 24 28
Price, each..... **\$3.00 \$3.15 \$3.50**



NICKEL PLATED FRAME HACK SAWS

Strong adjustable frame, durable and the best low price hack saw on the market. Weight, 10 oz.

4-Z-4951. Price complete with one 8-inch blade **47c**



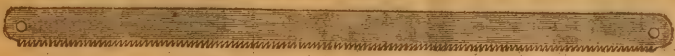
ALL STEEL FOLDING SAW VISE

The most durable saw vise and the lightest tool to carry in tool chest, can be attached or detached instantly without clamping vise by means of folding hooks, jaws are 14 inches long, nicely Japanned. Weight about 2 lbs.

4-Z-4950. Price each **\$1.17**



HIGHEST GRADE HACK SAW BLADES



Fast cutting Hack Saw Blade, made of special high carbon steel, properly tempered and are guaranteed to give first class satisfaction. Suitable for cutting tool steel and other metals.

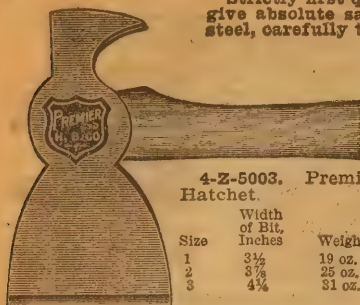
4-Z-4937. Length, inch..... 8 9 10 12
Price, per dozen..... **50c 55c 61c 72c**

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

See Our Many Bargains in Belting and Supplies

HATCHETS "Premier" HAMMERS

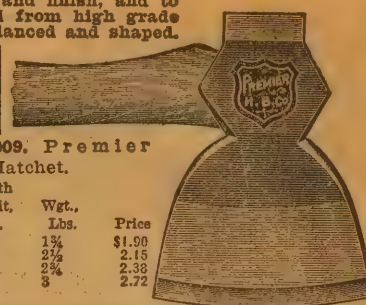
Strictly first quality, guaranteed to be perfect in material, workmanship and finish, and to give absolute satisfaction. Especially adapted for mechanics' use; forged from high grade steel, carefully tempered. Handles are selected white hickory, properly balanced and shaped.



4-Z-5003. Premier claw Hatchet.

Size	Width of Bit, Inches	Weight	Price
1	3 1/4	19 oz.	\$1.48
2	3 1/2	25 oz.	1.54
3	4	31 oz.	1.60

1.35



4-Z-5009. Premier Broad Hatchet.

Size	Width of Bit, Ins.	Wgt., Lbs.	Price
2	4 1/2	1 1/2	\$1.90
3	5	2 1/2	2.15
4	5 1/2	3 1/2	2.35
5	6	4 1/2	2.72

4-Z-5001. Premier Shingling Hatchets.

Size	Width of Bit, in.	Weight, oz.	Price
1	3 1/2	17	\$1.35
2	3 3/4	23	1.42
3	4 1/2	29	1.48

4-Z-5007. Premier High Grade Lathing Hatchets.

Size	Bit	Weight	Price
1	2 1/2 in.	14 oz.	\$1.35
2	2 3/4 in.	17 oz.	1.42

4-Z-5011. Premier Special Bell Poll Shingling Hatchet.

Size	Width of Bit	Weight	Price
1	3 in.	17 oz.	\$1.60

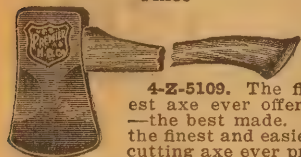
Premier Special Underhill Pattern Lathing Hatchet.

Size	Width of Bit	Weight	Price
1	3 in.	17 oz.	\$1.60

4-Z-5013. Premier Bell Poll Half Hatchet.

Size	Width of Bit	Weight	Price
1	2 1/2 in.	14 oz.	\$1.60
2	2 3/4 in.	17 oz.	1.70

Premier Homesteader Handled Axes



4-Z-5109. The finest axe ever offered—the best made. Is the finest and easiest cutting axe ever produced. Forged from the best grade of steel. The bits are double refined crucible steel. Accurately ground. Selected handles, Michigan pattern only.

Wgt.	3 1/2 lb.	4 lb.	4 1/2 lb.	5 lb.
Price	\$2.46	\$2.52	\$2.58	\$2.64

Premier High Grade Single Bit Axes



4-Z-5101. Hand forged from the highest grade steel. Double refined crucible steel bits. Properly shaped and tempered. Will hold a fine cutting edge. Each axe fully guaranteed. Handles not included. Michigan pattern.

Weight	Price
3 lbs.	\$1.98
3 1/2 lbs.	2.04
4 lbs.	2.10
4 1/2 lbs.	2.16
5 lbs.	2.22

Chicago Special Single Bit Axes

4-Z-5111. The best axe offered for all ordinary purposes. Absolute satisfaction guaranteed. Will hold a good cutting edge. Forged from good grade of steel. Michigan pattern.



Weight	Price
3 lbs.	\$1.68
3 1/2 lbs.	1.74
4 lbs.	1.80
4 1/2 lbs.	1.86
5 lbs.	1.92

Premier Special Nail Hammers



4-Z-5033. The highest grade, finest finish and one of the best hammers manufactured. Forged from extra tool steel, carefully tempered.

Octagon poll, full nickel plated finish. Carefully selected handles fitted and wedged to head. Made with the greatest care to meet with requirements of the most exacting mechanic. These hammers are guaranteed to give absolute satisfaction.

Size	1	1 1/2
Wt., not including handle, lbs.	1 1/4	1
Price	\$1.55	\$1.47

Holding Hammer Adze Eye Nail



4-Z-5035. With groove on side to hold nails size 10 penny and smaller. Made of the highest crucible steel and properly tempered. Second growth hickory handles properly fitted and wedged to head. Fully guaranteed. Weight, 19 oz., not including handles. Price

Specially Forged Steel Hammers

Size	1	1 1/2	2
Weight	20 oz.	16 oz.	13 oz.
Each	\$1.12	\$1.05	\$0.98

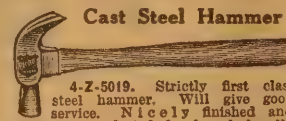
Special Bell Faced Hammer



4-Z-5037. Made of high grade crucible steel, properly tempered, with second growth hickory handle, properly fitted and wedged to head. Every hammer fully guaranteed.

Weight	20 oz.	16 oz.	13 oz.	7 oz.
Price	\$1.33	\$1.26	\$1.19	\$1.15

Cast Steel Hammer



4-Z-5019. Strictly first class steel hammer. Will give good service. Nicely finished and fitted with selected hardwood handle.

Weight	16 oz.	Price
		\$0.39c

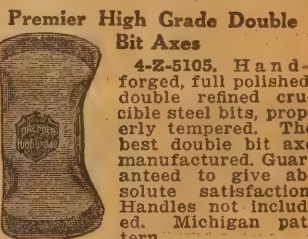
"Ever Ready" Handled Axes



4-Z-5115. Ever Ready axes are carefully forged, properly shaped and finished in a superior manner. Handles are hickory stained, properly fitted to axe. A better axe at a lower price than ever before offered. Each and every axe guaranteed.

Wgt.	3 lbs.	3 1/2 lbs.	4 lbs.	4 1/2 lbs.
Price	\$2.20	\$2.25	\$2.30	\$2.35

Premier High Grade Double Bit Axes



4-Z-5105. Hand-forged, full polished, double refined crucible steel bits, properly tempered. The best double bit axe manufactured. Guaranteed to give absolute satisfaction. Handles not included. Michigan pattern.

Weight	Price
3 1/2 lbs.	\$2.80
4 lbs.	2.85
4 1/2 lbs.	2.90
5 lbs.	2.95
5 1/2 lbs.	3.00

Chicago Special Double Bit Axes



4-Z-5117. They are strictly hand-forged and properly proportioned. Bits are double refined crucible steel and will hold a perfect cutting edge. Natural forge temper finish. Handles not included. Michigan pattern.

Weight	Price
3 lbs.	\$2.34
4 lbs.	2.40
4 1/2 lbs.	2.46
5 lbs.	2.52

Carpenters' Adzes



4-Z-5025. Forged from high grade steel. Has fine cutting edge, properly tempered. Handles not included.

Weight	Width cut
lbs. 3 1/4	3 1/2
lbs. 3 1/2	4
Price	\$1.95 \$1.97 \$2.00

Woodchoppers' Wedges



4-Z-5129. Regular pattern made from high grade steel, oil finished.

Weight	Price
pounds 4	50c

Malleable Iron Axe Wedge



4-Z-5121. Made with a screw, which prevents handle from pulling out.

Price	each
	3c

Truckers Pattern Woodchoppers' Wedge



4-Z-5131. Made of the highest grade crucible steel, oil finished.

Weight	Price
lbs. 4 6 8	44c 66c 88c

Saw Wedges



4-Z-5133. Made of the highest grade tool steel, oil finished. Nothing better manufactured.

Weight	Price
lbs. 1 1/2	2 1/4
	19c 35c

Oregon Pattern Mails

4-Z-5135. Made of high grade steel, oil finished.

Wt., lbs.	6	7	8
Price	\$1.05	\$1.26	\$1.44



4-Z-5265. Iron Block Plane. 6 1/2 inches long, 1 1/4-inch cutter. Price **80c**



4-Z-5267. Iron Block Plane. 7 inches long, 1 1/4-inch cutter. Price **\$1.05**



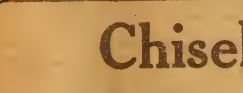
4-Z-5277. Knuckle Joint Improved Throat Adjustment. For fine or coarse wood. Has improved lateral adjustment for cutter. 6 1/2 in. long, 1 1/4 in. cutter. Price **\$2.50**



Adjustable iron smooth plane, 9 in. long, 2 in. cutter. 4-Z-5201. Smooth bottom. Price **\$3.95**



4-Z-5203. Corrugated bottom. Price **\$4.25**



4-Z-5271. Adjustable Block Plane. 7 inches long, 1 1/4-inch cutter. Price **\$1.60**

Adjustable Iron Bench Planes

You can pay more but you cannot buy better planes. The castings are made of special gray iron of unusual toughness and finished in a superior manner. The bottom of the planes are as smooth as it is possible to make them. The cutters are made of the highest grade steel and are much heavier than the ordinary cutter. The cause of this is that the cutting edge is firm and solid and will not chatter in the hardest woods. Fitted with an adjusting lever by means of which the iron can be easily adjusted sideways, giving an easy lateral adjustment. The handles and knobs are genuine mahogany, highly polished.

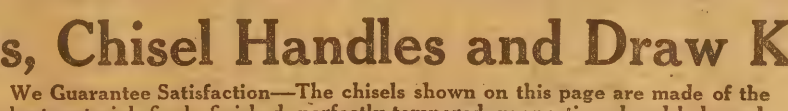
Our Leader, smooth bottom iron jack plane 14 inches long, 2-inch cutter. 4-Z-5260 **\$4.50**
4-Z-5262, corrugated bottom **\$4.75**



Adjustable Iron Jointer Plane, 22 inches long, 2 1/4-inch cutter. 4-Z-5213. Smooth bottom. Price... **\$6.75**
4-Z-5215. Corrugated bottom. Price. **7.25**



Adjustable iron fore plane, 18 inches long, 2 1/4-inch cutter. 4-Z-5209. Smooth bottom. Price... **\$5.80**
4-Z-5211. Corrugated bottom. Price. **6.25**



Adjustable Wood Bottom Jointer Plane 4-Z-5229. 24 inches long, 2 1/4-inch cutter. Price **\$3.95**



4-Z-5273. Double End Block Plane. With two slots and two seats for cutter. By changing the cutter and lever from one end to the other, it can be used to plane in close corners. Can also be used as a block plane. Length 8 inches, 1 1/4-inch cutter. Price.... **\$1.55**

ADJUSTABLE PLANE GAUGE

For Iron or Wood Planes.



4-Z-5279. For Planing Bevels of any angle or square joints, without use of a tri-square or bevel. Can be quickly attached or removed. Price **\$1.15**



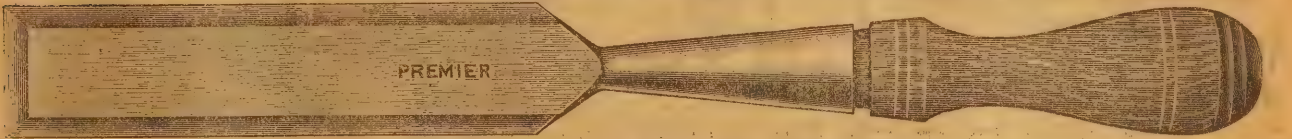
4-Z-5269. Adjustable Block Plane. 5 1/2 inches long, 1 1/4-inch cutter. Price..... **\$1.10**



4-Z-5275. Adjustable Block Plane with Improved Throat Adjustment. For fine or coarse wood. Fitted with improved lateral adjustment for cutter. 6 inches long, 1 1/4-inch cutter. Price **\$2.15**

Chisels, Chisel Handles and Draw Knives

We Guarantee Satisfaction—The chisels shown on this page are made of the best material, finely finished, perfectly tempered, proportioned and balanced.



High Grade Beveled Edge Leather Tip Socket Firmer Chisel.

4-Z-5601. Made of the best steel that is possible to buy, carefully hardened and tempered. Each tool is carefully inspected during the process of manufacture, and after it is finished. Every tool is of uniform hardness and possesses a fineness of temper and a perfect cutting edge. They are hand honed, and finished in the best possible manner. Handles are

of select White Hickory, leather tip. We guarantee these chisels to be satisfactory in every respect.

Size, inches.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2					
Price each.	.69c	70c	71c	73c	78c	81c	87c	92c	96c	1.00	1.06	1.12

Perfect Handle Drawing Knives

4-Z-5633. Made from a solid piece of highest grade crucible steel, properly hardened and tempered; the blade can be ground and reground, and will always hold a fine cutting edge. Hardwood handles securely fastened. Length, inches. 8 10 12
Price each. **\$1.95 \$2.10 \$2.28**

High Grade Drawing Knives

4-Z-5651. Made from a high grade crucible steel, properly ground and tempered as a razor blade. Tangs extend through handles, and will not pull out. Length, inches. 8 10 12
Price each. **\$1.27 \$1.45 \$1.70**

PLAIN EDGE CHISEL

4-Z-5607. Made of special high grade steel, carefully hardened and tempered. Each Chisel is carefully sharpened; handles of selected White Hickory, leather tips. Size, inches. 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Price, each. **.60c 61c 62c 65c 71c 72c**
Size, inches. 1 1 1/4 1 1/2 1 3/4 2
Price, each. **.78c 83c 88c 93c 1.00 1.05**

COACH-MAKER'S KNIVES

4-Z-5635. Narrow blade, made from the highest grade crucible steel, properly tempered; tangs extend through handles and will not pull out. Guaranteed to give entire satisfaction. Size, inches. 10
Price, each **\$1.75**

BEVELED EDGE SOCKET FRAMING CHISEL

4-Z-5609. Blades made of Crucible Steel; hardened, tempered and finished in a high grade manner. Specially selected Hickory handle with iron rings on end. Inch 1 1 1/4 1 1/2 1 3/4 2
Price, each **\$0.90 \$0.96 \$1.00 \$1.07 \$1.18 \$1.29 \$1.40 \$1.50**

HIGH GRADE SOCKET BUTT CHISELS

Especially adapted for putting on Butts, and working in close places. Length of blade about 3 1/2 inches. High grade quality and finish; leather tip; solid Hickory handle. Length in inches 1 1 1/4 1 1/2 1 3/4 2
4-Z-5655. Price, each. **.85c 89c 94c 97c \$1.02**

SOCKET CORNER CHISEL

4-Z-5617. Properly tempered; selected Hickory handles, with iron ring on end to prevent splitting. Size inches. 1 1 1/4 1 1/2 1 3/4 2
Price, each **\$1.00 \$1.10**

SOCKET FIRMER CHISEL HANDLES

4-Z-5643. Selected hickory, with iron rings on end to prevent splitting. Price, each..... **8c**

OUR BINDING GUARANTEE
BACK OF EVERY TOOL

EXPERT BRACE AND BIT
SET



4-Z-5315. Each and every tool within this set guaranteed. The set consists of one ten-inch high grade ball bearing ratchet bit brace with metal clad head, 8 single twist auger bits, sizes $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, and 1 inch; 8 German pattern gimlet bits, sizes $\frac{1}{8}$ to $\frac{1}{2}$; 1 Clark's Pattern large size expansion bit; 1 screw driver bit; 1 square reamer; 1 bit gauge; 1 countersink; 1 auger bit file. Complete in a hardwood box. Price..... **\$14.75**

BITS & BEST BRACES BUYABLE

STRICTLY
HIGH
GRADE
RATCHET
BRACE



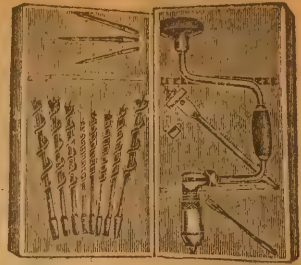
BALL
BEARING
AND
DUSTPROOF
HEAD

\$3.85

4-Z-5337. Here is a brace that we purchased in a two-carload lot from an overstocked manufacturer, at less than cost of materials used. Strictly high grade ratchet brace. Ball bearing dustproof head. Machine made throughout. Cold drawn steel sweep. All metal parts highly polished and heavily nickel plated and nicely finished throughout. Cocobola head and handle with improved metal capped head. Forged alligator spring jaws. Will take square or round shank drills. Sweep, inches, 8, \$3.85; 10, \$4.00; 12, \$4.12.

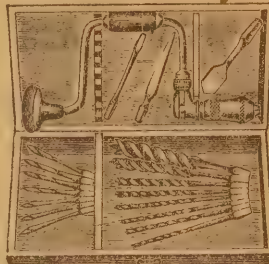
FINEST TOOLS MADE—LOWEST
PRICES, TOO

MECHANICS' FAVORITE BRACE
AND BIT SET

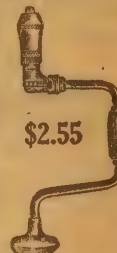


4-Z-5321. Every item in this set is carefully selected with a view of furnishing an outfit that is guaranteed to give satisfaction. The set consists of one 10-inch ball bearing dustproof head nickel-plated ratchet brace with forged alligator jaws; 8 solid center extension lip bits cutting from $\frac{1}{8}$ to 1 inch; 1 Clark's pattern expansion bit; 1 screw driver bit; 3 German pattern gimlet bits. Put up in a hardwood box. Price per set..... **\$13.50**

HARCO BRACE AND BIT SET



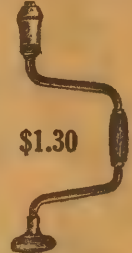
4-Z-5343. A first-class outfit that will answer all general requirements for form, shop and mechanics' use, consisting of: one 10-inch nickel-plated ratchet brace with alligator jaws; 8 Jennings pattern extension lip auger bits, sizes $\frac{1}{8}$ to 1 inch, 3 bit stock drills; 3 German pattern gimlet bits; 1 screw driver bit; 1 countersink and 1 square reamer. Put up in a neat hardwood box. Price per set... **\$11.25**



4-Z-5325. Ring ratchet braces nicely polished. Cold drawn steel sweep alligator jaws. Polished satinwood head and handle. Natural finish, fully warranted. Sweep Price
10 inches...\$2.55
12 inches...2.60



4-Z-5335. The best ratchet brace ever offered at this low price. Strong, durable and well made for all ordinary use. Hardwood head and handle. 7/16-inch cold drawn sweep, hardened steel jaws. Hardwood sweep and handle. 10 in. sweep Price
10 inches...\$1.85
12 inches...1.55



4-Z-5327. A strong, durable brace. Ebonyized hardwood head and handle. Cold drawn steel sweep. Heavily nickel-plated. Steel alligator jaws. Sweep Price
8 inches...\$1.30
10 inches...1.45
12 inches...1.55



4-Z-5339. Great favorite with carriage builders, wood workers and blacksmiths. Solid steel jaws and bows. Cocobola head and handle. Holds square shank drill or bit. Sweep Price
8 inches...\$1.25
10 inches...1.30
12 inches...1.75



4-Z-5329. A substantial ratchet brace for all purposes. Metal clad head, cold drawn steel sweep. Ebonyized hardwood head and handle. Hardened alligator jaws. Finely polished and nickel plated. Sweep Price
8 inches...\$2.85
10 inches...\$2.85
12 inches...2.95



4-Z-5323. A substantial and satisfactory brace for all ordinary use. 7/16 inch cold drawn steel sweep, natural finish. Nicely polished head and handle. The best low priced brace ever offered. Sweep Price
8 inches...75c
10 inches...80c

COMBINATION BALL BEARING
RATCHET BRACE
AND DRILL



4-Z-5315. A tool which can bore holes in close places. Has ball bearing head and forged steel alligator jaws. Will hold straight, round shank drills, as well as regular drill bits. By removing the hand drill attachment you have a fine ball bearing ratchet brace, 10 in. sweep. Steel cut gears. Cocobola head and handles. All parts are fully nickel-plated. Price..... **\$5.25**

DOUBLE GEARED BREAST DRILL



4-Z-5333. Ball bearing with level attachment. Heavy nickel-steel frame, 6 in. diameter wheel, cut gears. Cocobola handles. Alligator jaws which handle any size bit stock, also round shank drills from $\frac{1}{8}$ to $\frac{1}{2}$ in. Fully warranted. Price, each..... **\$6.05**

BALL BEARING BREAST DRILL



4-Z-5317. Japanned malleable frame, polished cocobola handles. Nickel plated chuck. Changeable gear from even to speeded about 8 to 1 with level attachments to show when drill is being held true. Steel alligator jaws will take any size bit stock also round shank drill bits up to 3 in. Price..... **\$5.10**

PRATT'S PATENT AUGER



4-Z-5341. Used as an auger handle in horizontal position. For use in close places. One handle can be removed and placed at right angles. Can also be used as a ratchet drill. Price each..... **\$2.70**

HANDLE OR
RATCHET
DRILL

HIGH GRADE PLANE IRONS



Made of high grade steel carefully tempered. All double irons have steel caps.

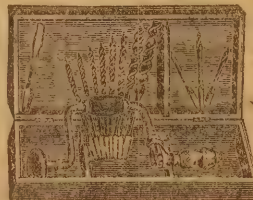
4-Z-5301. All iron and wood bottom planes. Single Irons.

Width in in.....	2	2 1/4	2 3/4	2 3/2
Price.....	25c	27c	32c	35c

4-Z-5303. Double Irons.

Width in in.....	1 1/2	2	2 1/4	2 3/4	2 3/2
Price.....	38c	41c	43c	48c	52c

UTILITY BRACE
AND BIT SET



4-Z-5319. Just what is required for home and farm use. A careful comparison will convince you that we offer more for the money than can be secured elsewhere. This set consists of: one 10-inch nickel-plated ratchet brace; 8 standard double spur bits, $\frac{1}{8}$ to 1 in.; 3 German pattern gimlet bits; 1 high grade screw driver bit. Put up in a neat hardwood box. Price..... **\$8.15**

PLANE HANDLES

4-Z-5311. Selected beechwood jack pine handles. Price each..... **11c**

4-Z-5313. Selected beechwood Fore Plane Handles. Price each..... **15c**



BALL BEARING RATCHET BIT BRACE

4-Z-5331. The best ratchet brace that is possible to produce, and will meet the requirements of the most critical mechanics. It has solid steel chucks. Hardened forged steel alligator jaws, which will hold any size square shank, as well as the small size round shank drills, $\frac{1}{8}$ -in. cold drawn steel sweep, finely polished and heavily nickel plated. Dust-proof ball bearing metal clad head, polished cocobola head and handle, steel enclosed frame.



Sweep in inches.	8	10	12	14
Price.....	\$4.15	\$4.25	\$4.40	\$4.55

GERMAN PATTERNS GIMLET BITS

4-Z-5509. The finest gimlet bits manufactured. Special high grade steel, properly tempered, especially adapted to those who work in hard woods. Sizes, 2-32, 3-32, 4-32, 5-32, 6-32, 7-32, 8-32, 10-32. State size. Any size. Each **14c**

SCREW DRIVER BITS

4-Z-5525. High Grade Tempered Crucible Steel.
Small Medium Large Extra
Price, each 20c 22c 25c 27c

REVERSIBLE COUNTERSINK AND DOWEL POINTER

4-Z-5526. Reversible Head. Can be used for sharpening pins or dowels. Cutter made of high grade tool steel. Price, each **15c**

Ship Auger Bits

1-Z-5449. Desirable for boring the toughest hardwoods, knotty timber and end boring. Made of double refined steel, finely finished. Fully guaranteed. Have 4 to 6 inch twists.
Size, inches 1/2 3/4 1 1 1/4 1 1/2
Price, each 70c 75c 75c 75c 75c
Size, inches 1 1 1/4 1 1/2 1 3/4 2
Price, each 75c 80c 91c \$1.05
Size, inches 2 2 1/4 2 1/2 3 3/4 4
Price, each 1.07 1.22 1.25 1.40 1.43

Premier Single Twist Extension Lip Auger Bits

For rapid and easy boring in any kind of wood. Specially designed for work in the toughest hardwoods, knotty timber and end boring. Will bore more rapidly and with greater ease than any other style of auger bit made. The open twist affords ample clearance for the chips and cannot choke up. Made by highly skilled workmen. Tempered and finished in the finest manner and each bit is carefully tested and fully guaranteed.

4-Z-5441. Premier Single Twist Extension Lip Auger Bits.
Size, inches 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Price, each 60c 61c 62c 63c 65c 71c
Size, inches 2 2 1/4 2 1/2 2 3/4 3 3/4 4
Price, each 72c 88c 85c 95c 98c \$1.12 1.13

"Perfect" Handle Screwdriver

4-Z-5541. Will Stand More Abuse Than Any Other Screwdriver Made. The Only Screwdriver that can be used as a Hammer, to force point of screw into the wood. The blade, bolster handle, finished hammer head are drop forged from one piece of the toughest steel that can be made, the handles being pocketed on each side of the drop forging in such a manner and so securely that they cannot be split or broken off. Is properly balanced and perfectly tempered. Fully warranted. There is absolutely nothing better made.

Length of blade, inches 4 6 8 10
Price, each 35c 48c 65c 80c

Genuine Champion Screwdriver

4-Z-5545. A favorite of many years' standing. Blades are forged from the highest grade steel, properly tempered and fastened securely in handle and cannot pull out. Selected hardwood handle, cherry finish.
Length blade, inches 3 4 5 6 8 10
Price, each 30c 32c 35c 40c 52c 60c

Goodell's Reversible Interchangeable Screwdriver

4-Z-5551. With two distinct spirals. For driving and drawing screws automatically. Finished hardwood handle, furnished with three forged steel bits; length extended, 1 1/2 inches; length closed, 9 inches. Price **\$2.50**

Fine Tools Priced Low!

Clark's Pattern Expansive Bit



Cutters are made of high grade tool steel properly tempered. Great care is taken in the fitting of this tool, and it is guaranteed to give satisfactory service.

4-Z-5509. Small Size Clark's Pattern Expansion Bit. With two cutters, one boring from 1/2 to 1 inch; the other from 1 to 1 1/2 inches. Price **\$1.70**

4-Z-5511. Large Size Clark's Pattern Expansion Bit. With two cutters, one boring from 1 to 1 1/2 inches; the other from 1 1/2 to 3 inches. Price **\$2.40**

4-Z-5513. Extra Cutters for Small Size Clark's Pattern Expansive Bit.

Size No. 1. Cuts from 1/2 to 1 inch. Price 31c

Size No. 2. Cuts from 1 to 1 1/2 inches. Price 37c

4-Z-5515. Extra Cutters for Large Size Clark's Pattern Expansive Bit.

Size No. 3. Cuts from 1 to 1 1/2 inches. Price 56c

Size No. 4. Cuts from 1 1/2 to 3 inches. Price 56c

Jennings' Pattern Solid Center Extension Lip Auger Bits

Solid Center Auger Bits. Extreme care is taken in the manufacture of these bits. Each bit is carefully tempered and absolutely straight and true to size. Each bit is hand forged from double refined crucible steel, properly tempered, full length of twist. Highly finished and fully guaranteed.

4-Z-5438. Jennings' Solid Center Extension Lip Auger Bits.

Size, inches 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Price, each 58c 60c 61c 62c 63c 70c

Size, inches 2 2 1/4 2 1/2 2 3/4 3 3/4 4
Price, each 71c 82c 83c 85c 97c \$1.11 1.12

Premier Jennings' Pattern Extension Lip Auger Bits

The Best Jennings' Pattern Extension Lip Auger Bit Manufactured. Can be used for boring hard or soft wood and will bore through with out splitting the wood. We recommend these bits for mechanics. Properly tempered, full length of twist. Lips are carefully forged and sharpened and will cut faster and outwear any other JENNINGS' PATTERN bit manufactured. Bit is perfectly straight and true to size. Full polished finish.

4-Z-5425. Premier Jennings' Pattern Extension Lip Auger Bits.

Size, inches 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Price, each 47c 48c 50c 51c 52c 57c 58c

Size, inches 2 2 1/4 2 1/2 2 3/4 3 3/4 4
Price, each 67c 68c 80c 81c 92c 93c

Indestructible Square Shank Screwdriver

4-Z-5543. For Mechanics' use. Square shank for use with wrench for tightening or loosening screws or other heavy work. Blade, shank and head are forged from a solid piece of high grade tool steel. Shank extending through handle is flattened, forming a cap, making it impossible to turn, or the handle to come out. The steel ferrules are put on under heavy pressure and are guaranteed to remain in place. Handles are selected hardwood, ebonized finish. Each tool warranted to give entire satisfaction or money refunded.
Length of blade, inch. 3 4 6 8 10
Size sq. shank, inch. 3/16 1/4 5/16 3/8 1/2
Price, each 25c 30c 40c 62c 68c

Drill Attachment for Goodell's Interchangeable Screwdrivers

Can be readily applied to Goodell's Interchangeable Screwdrivers, converting the driver into an automatic drill, thus combining two tools in one.

4-Z-5553. Fitting Automatic Screwdriver, No. 1-Z-5519. Price for chuck and eight drill points **\$1.00**

4-Z-5555. Fitting Reversible Screwdriver, No. 4-Z-5551. Price for chuck and eight drill points **\$1.00**

Goodell's Ratchet Screwdriver

4-Z-5557. The strongest, most durable ratchet screwdriver on the market. Blades, dogs and spring, which make up the ratchet mechanism, made of a high grade tool steel. The ratchet teeth are deeply cut directly into the stem. Changes from right to left are made by simply turning the knurled ferrule. Each tool fully warranted. Length blade, inches 5 6 8 10
Price, each \$1.05 \$1.08 \$1.17 \$1.27 \$1.44

Goodell's Automatic Interchangeable Screwdriver

4-Z-5549. Can be used as a spiral ratchet or plain screwdriver. Practical, strong, durable tool. Will not get out of order. Furnished with three forged steel bits. Selected finished hardwood handle. Length extended, 1 1/4 inches. Length closed, 7 1/2 inches. Price **\$1.75**

Square Reamer Bits

4-Z-5537. Cast steel. Properly Tempered and Ground. Price **25c**

Countersink Bit With Gauge



4-Z-5533. To Regulate Depth of Cut. For wood only. High grade tool steel. Fully Warranted. Price **32c**

Car Bits

4-Z-5451. For boring heavy timbers. Used by bridge builders and millwrights. Length of twist 12 in.
Size, inches 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Price, each \$1.05 \$1.06 \$1.08 \$1.16
Size, inches 2 2 1/4 2 1/2 2 3/4 3 3/4 4
Price, each \$1.31 \$1.46 \$1.60 \$1.75
Size, inches 5 6 8 10 12
Price, each \$1.90 \$2.05 \$2.21 \$2.39 \$2.50

Common Pattern Auger Bits

4-Z-5401. Common Pattern Double Spur Standard Auger Bits.
Size, inches 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Price, each 44c 45c 46c 47c
Size, inches 2 2 1/4 2 1/2 2 3/4 3 3/4 4
Price, each 49c 52c 53c 61c
Size, inches 5 6 8 10 12
Price, each 62c 71c 73c 83c 85c

Nail and Staple Pullers, Pliers and Punches

NAIL PULLER

This nail puller has forged tempered steel jaws, hardened and oil tempered. Gets the nails out so they can be used again.
4-Z-6125. Price, each..... **\$1.00**

PREMIER WIRE FENCE TOOL



8 Tools in 1

Staple Puller
Hammer
Wrench
Wire Stretcher
Wire Cutter
Pincers
Wire Tier
Pipe Grip

This high grade Staple Puller, made in the most careful manner from the highest grade tool steel, each tool is properly shaped to fit the hand, and not cause the operator's hand to cramp. One of the most rapid staple pullers on the market. This is the best three joint Staple Puller made, nicely finished.
4-Z-6101. Length 10 inches. Price... **\$1.80**

DROP FORGED PLIERS

Drop Forged, Button Plier, carefully tempered and nicely finished, will hold and cut wire. Has three cutters, perfect cutting and the most useful article for all purposes.

4-Z-6107. Price, per pair, 6", 83c; 8", 95c; 10", \$1.15.

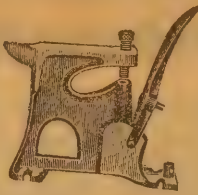


Perfection Side Cutting Plier, forged from the highest grade tool steel, raised cutting edges, with cutting quality, used daily in Electrical trade. Strong and durable and guaranteed to give satisfactory service.



4-Z-6137. Price, per pair, 6"..... **\$1.05**

COMBINATION PUNCH AND RIVETER



adjustable rivet set for tubular or split rivet, with hand finish or polished handle.
4-Z-6141. Price, each **\$1.25**

An absolute necessity to the farmer, liveryman, teaming contractor and any one who in any way has a harness or straps to repair. Punches or rivets on the downward stroke. A good substantial tool made of the toughest grade iron, tempered steel punch.

HANDY LEVER RIVETER

For tubular rivets only, the screw is on the lever, pull down the lever, the hole is punched and the rivet is clinched. Both done in one operation.



4-Z-6147. Price, each **60c**

TUBULAR RIVETS

4-Z-6151. Put up in one size only—100 in a package. Price per box:

3/16".....	\$0.26	1/2".....	\$0.36
1/4".....	.28	9/16".....	.38
5/16".....	.30	3/8".....	.39
3/8".....	.32	11/16".....	.42
7/16".....	.34	3/4".....	.48



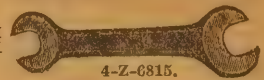
STEEL ALLIGATOR WRENCH



4-Z-6839. Can be used for Pipes, Bolts or Nuts up to 1/2-inch in diameter. Each **8c**

ENGINEERS' DROP FORGED STEEL WRENCHES, DOUBLE END

BLOCK FINISH



4-Z-6815.

Size No.	Size Bolts of U. S. Standard Nuts	Extreme Length	Price Each
23	3/16 to 1/4	4 inch	\$0.14
25	1/4 to 5/16	4 1/2 inch	.17
26	5/16 to 3/8	5 inch	.21
27	3/8 to 7/16	5 1/2 inch	.25
29	7/16 to 1/2	6 inch	.30
30	1/2 to 5/8	7 inch	.32
31	5/8 to 3/4	7 1/2 inch	.36
34	3/4 to 7/8	9 inch	.46
37	7/8 to 1	11 inch	.66
38	1 to 1 1/8	13 1/2 inch	1.00
39	1 1/8 to 1 1/4	13 1/2 inch	1.02
40	1 1/4 to 1 1/2	15 inch	1.40
41	1 1/2 to 1 3/4	15 inch	1.42

DROP FORGED "S" WRENCHES

4-Z-6817



This wrench is of long light pattern designed for use on agricultural machinery.

Standard Nut Size Bolt	Size of Opening	Extremes Length	Price Each
3/16 and 1/4	3/8 and 1/2	6 1/2	\$0.20
1/4 and 5/16	1/2 and 3/4	7 1/2	.23
5/16 and 3/8	3/4 and 7/8	8 1/2	.35
3/8 and 7/16	7/8 and 1	9 1/2	.45
7/16 and 1/2	1 and 1 1/8	10 1/2	.55

4-Z-6819. Price per set of five wrenches... **\$1.65**

DROP FORGED GRIP WRENCH

4-Z-6835. Made of Special High Grade Tool Steel. Will grip any surface, round or square, from 1/4 to 1 inch in diameter.



Has 3 dies in center suitable for re-threading bolts that have damaged threads. Will re-thread bolts sizes 5/16, 3/8, 1/2. Price, each **48c**



Lodi Cutting Pliers, for cutting soft steel wire only. Made of good grade steel, nicely finished and polished.

4-Z-6121. Price, each, 5".....10c 6".....16c



Lodi Flat nose pliers, made of good grade steel, light and very strong, nicely polished. A very good tool at this low price.

4-Z-6117. Price, each, 4".....5c 5".....8c 6".....10c



GAS PLIERS

Best grade drop forged gas pliers. Carefully tempered and fitted with polished jaws.

4-Z-6113. Price, per pair, 6".....25c 7".....30c 8".....30c



Carpenter's Pincers, forged from tool steel, properly tempered, polished jaws, claw on one handle, screw driver on the other.

4-Z-6133. Price, per pair, 6".....50c 7".....63c 8".....63c 10".....80c



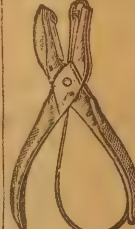
Cast Steel Spring Punch. Single tube, special tempered steel tubes, length 8", tube sizes 4, 6, 8, 10. Mention size when ordering.

4-Z-6143. Price, each, 80c



Four tube revolving punch, full polished, special tempered tubes, each of different size, length over all 8", fully warranted.

4-Z-6145. Price, ea. \$1.25



Paragon Reservoir Punch, has a reservoir to retain the clipplings. Fully nickel plated for card parties, and various affairs.

4-Z-6123. Price, each, .35c



Six tube revolving punch. Special tempered, spring and steel tubes, six different size tubes, fully polished, length over all 8".

4-Z-6149. Price, ea. \$1.40



Flat Nose Plier, forged from crucible steel, nicely finished. 4-Z-6129. 4".....10c 5".....12c



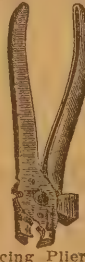
Utility Wire Cutting Plier, made of good quality steel, and nicely polished. 4-Z-6118. Price, 5 1/2".....15c



Long Chain Nose Side Cutting Plier, for jewelers, electricians, etc. 4-Z-6135. Length in in. 6 Price \$1.30



A standard Button Plier, Drop forged. Has two cutters. 4-Z-6111. 6".....65c 8".....85c 10".....\$1.05



Fencing Plier. can be used as a hammer, plier, wire cutter and staple puller. 4-Z-6105. Price, each.....75c



Combination Fencing Plier, combines all tools, hammer, staple puller, wire plier, etc. Length, 10 ins. 4-Z-6103. Price.....\$1.50



Combination Plier. wire cutter, screw driver and wrench. Nickel plated finish. 4-Z-6109. 6 1/2".....40c

Woodworkers' Supplies at Interesting Prices!

SLIDING "T" BEVELS



4-Z-5745. Brass tipped, solid rosewood handle. For right or left hand use.

Lgth., ins.. 6 8 10 12
Price40c 47c 50c 55c

POCKET LEVEL

4-Z-5737. Can be readily attached to steel square or straight edge. Iron body, brass top plate, proved glass. Warranted true. Price.....



POLISHED CHERRY PLUMB AND LEVEL



4-Z-5715. Brass arch top plate, two side views, proved glass. Fully warranted. Lengths, 26, 28 and 30 inches. State length wanted. Price.....

ADJUSTABLE CHERRY PLUMB AND LEVEL WITH EXTENSION LEVEL SIGHTS



4-Z-5731. When not in use the sides are depressed husk, with the surface of the level and raised into position by merely pressing the button. The sights are accurately adjusted and may be relied upon to extend the horizontal line to any distance required. The level is highly polished and has brass arch top plate, brass tipped side views and heavy brass ends. Price.....

LEVEL SIGHTS

4-Z-5757. Can be readily attached to any wood level. With which the user has accurate means of leveling from one given point to another at a long distance. Price, pair...



4-Z-5758. Level sights for iron levels. Price, per pair

MASON'S PLUMB AND LEVEL

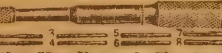


4-Z-5733. High grade level for brick and stone masons. Is adjustable. Has brass arch top plate, two side views and can be used with plumb bob and line. Price.....

STEEL MEASURING TAPE

4-Z-5835. Used by Contractors, Builders and others who require a reliable tape for outside work. Can be used in damp or wet places without injury and will not stretch. The most satisfactory and accurate tape manufactured. Hard leather case, securely stitched. Handle folds flush with case. Marked in feet, inches and 8ths of inches. Length, feet..... 50 100
Price, each.....\$6.50 \$10.50

GOODELL'S AUTOMATIC HAND DRILL



4-Z-5853. Handle and Chuck Knurled. Entire tool finely finished and heavily nickel plated. Drill points are contained in separate numbered compartments in hollow handle. The cap through which the drill points are extracted is smooth and solid and properly shaped. Drill points are so milled that when properly fastened in chuck they cannot be pulled out when in use. Price includes 8 drill points, 1/16 to 11/64 inch. Length 10 1/2 inches. Price.....

WROUGHT IRON BENCH SCREWS

4-Z-5847. Lathe cut threads, movable collars. Furnished with hardwood handles. The best iron bench screw made. Diam., ins.. 1 1/4 1 1/2 1 3/4 1 7/8
Lgth., ins.. 16 18 17 19
Price, each..78c 95c \$1.15 \$1.30



4-Z-5703. No. 100C. Copper finished steel square, heavily copper plated, practically rust-proof; hardened steel corners; figures and graduations are white enamel and stand out clear and distinct. Size of body 24x2 in., size of tongue 16x1 1/2 in.; face marked 1/16, 1/8 and 1/4 in. spaces; back marked 1/100, 1/32, 1/8, 1/10 and 1/4 in. spaces. Has Essex board measure, eight square and brace measure; fully warranted. Price.....

NICHOLLS TAKE-DOWN SQUARE

Nicholls take-down square. What every mechanic has long desired. Occupies space 4x24 inches and is absolutely accurate and thoroughly practical. Tongue and groove is accurately milled to fit tight and make a perfectly true joint. Has no bolts or screws to become loose or lost. The spring takes up any wear. Long bearings in grooves combined with the square shoulders insure an accurate fit. Size of body, 24x2 inches. Size of tongue, 16x1 1/2 inches. Face marked 1/16 and 1/8 inch spaces; back marked 1/12 and 1/4 inch spaces. Has Essex board measure and brace measure. Figures and graduations are deep and plainly marked. Fully warranted.

4-Z-5725. Blued finish with canvas case \$3.00

4-Z-5727. Polished finish with canvas case \$2.70

COMBINED TRY AND MITER SQUARE

4-Z-5741. Brass lined rosewood handle, steel blade. Graduations plainly and accurately marked. A first class mechanics' tool, fully warranted. Size represents length of blade.

Size, inches..... 4 1/2 5 6 7 1/2 9
Price40c 55c 60c 63c 75c

METAL TRY SQUARES

4-Z-5743. A first class tool at a moderate price. Steel blade, graduations accurately marked. Nickel plated iron handles, fully warranted. Size represents length of blade.

Size, inches..... 6 8 10 12
Price55c 60c 80c 95c

MECHANICS' OXIDIZED COPPER FINISHED SQUARE

4-Z-5701. No. 100 R. O. C. Oxidized copper finished square. Will please any mechanic who appreciates first-class tools. Oxidized copper, giving it the appearance of a gun metal finish and is the best rust resisting finish known. The graduations and figures are white enamel, clear and distinct. Has hardened corners, which will not wear round when used for making spaces. Body, 24x2 in., size of tongue 16x1 1/2 in., marked on face, 1/16, 1/8 and 1/4 spaces; on back, 1/32, 1/12 and 1/10 spaces. Has brace measure, eight square, 1/100 scale and ruler table for buildings of any width or pitch and as shown in illustration; furnished complete with directions. Price.....

CABINET MAKERS' CLAMP ATTACHMENT

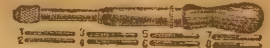


4-Z-5869. Cabinet Makers' Clamp Attachment. Will fit wood bar 1 3/4x2 1/2 inches. Can be used on bar of any length. Used by carpenters and cabinet makers. Fitted with 1/4 inch screw and crank handle. Price, without bar, each..

WATTS FAMOUS CORN SHELLERS

4-Z-5867. Has heavy "T" shaped steel bar. Size, 1 1/4 by 3/16 inches, 3/8 inch wrought screw and malleable castings. The best and strongest bar clamp made. Opens, feet..... 2 1/2 3 4 5
Price, each.....\$5.50 \$6.00 \$6.75 \$7.50

GOODELL'S AUTOMATIC HAND DRILL



4-Z-5861. Drill Nickel Plated Finish. Cocobola Handle. Knurled chuck. Length 10 inches. Price includes 8 drill points from 1/16 to 11/64 inch. Price.....

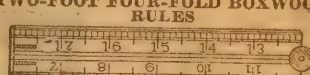
AUTOMATIC DRILLING ATTACHMENT WITH IMPROVED SELF-FEED

Requires no attention from operator, feeds easily and steadily and without jerking, which is common in all ratchet feed chain drills. Will not choke up. The bearings are hardened steel and run on hardened steel balls. The most durable, easiest chain drill manufactured.

4-Z-5855. For drills 1/2-inch round shank. Price.....

4-Z-5857. With universal bit brace chuck for holding square taper shank or bit stock drills. Price.....

TWO-FOOT FOUR-FOLD BOXWOOD RULES



4-Z-5801. Round Joint and Middle Plates. Spaced 8ths and 16ths.....

ONE-FOOT FOUR-FOLD CALIPER RULE



4-Z-5817. Has arch joint, full brass bound. Spaced 8ths, 10ths, 12ths and 16ths.....

SIX-INCH TWO-FOLD CALIPER RULE

4-Z-5819. Square joint. Spaced 8ths, 10ths, 12ths and 16ths. Width, 3/8 inch. Price.....

ZIG ZAG FOLDING RULES

4-Z-5821. Spring joints. Yellow finish, black markings, metal tips.

Length, feet..... 3 4 5 6
Price36c 48c 73c 75c

THREE FOOT FOUR-FOLD RULE



4-Z-5815. Arched Joints, middle plates. Spaced 8ths and 16ths.....

STEEL BAR ECCENTRIC CLAMPS



4-Z-5859. For Cabinet Makers' Use. Heavy steel bar, quick adjusting. Size, inches 12 18 24 30 36 48
Price \$1.50 \$1.75 \$1.98 \$2.25 \$2.46 \$2.97

CABINET MAKERS' STEEL BAR CLAMPS



4-Z-5867. Has heavy "T" shaped steel bar. Size, 1 1/4 by 3/16 inches, 3/8 inch wrought screw and malleable castings. The best and strongest bar clamp made. Opens, feet..... 2 1/2 3 4 5
Price, each.....\$5.50 \$6.00 \$6.75 \$7.50

Stonemasons' Bricklayers' and Plasterers' Tools

SPAULING HAMMERS



Single Face Double Face
Solid cast steel. Polished faces. Handles not included. Either single or double face, same price.

4-Z-6213. Single face.	
4-Z-6215. Double face.	
Weight, 3½ pounds. Each.....	\$0.85
Weight, 4 pounds. Each.....	.94
Weight, 5 pounds. Each.....	.95
Weight, 6 pounds. Each.....	1.15
Weight, 8 pounds. Each.....	1.53
Weight, 10 pounds. Each.....	1.90

STRIKING OR DRILLING HAMMERS



4-Z-6217. Solid cast steel. Polished faces. Handles not included.

Weight, 3½ lbs. Ea. \$0.65	
Weight, 4½ lbs. Ea. .83	
Weight, 5 lbs. Ea. .84	
Weight, 6 lbs. Ea. .77	
Weight, 8 lbs. Ea. 1.02	
Weight, 9 lbs. Ea. 1.15	

STONE SLEDGES



4-Z-6251. Solid cast steel. Polished faces. Handles not included.

Weight, 8 lbs. Ea. \$1.05	
Weight, 10 lbs. Ea. 1.30	
Weight, 12 lbs. Ea. 1.55	
Weight, 14 lbs. Ea. 1.80	

MASONS' HAMMERS



4-Z-6253. Finest tool steel, properly tempered. Bronzed finish, polished edge and face. Handle not included.

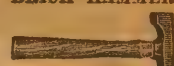
Wt., 3½ lbs. Ea. \$0.95	
Wt., 4 lbs. Ea. 1.06	
Wt., 4½ lbs. Ea. 1.18	

BRICK CHISELS



4-Z-6255. Solid cast steel. ¾-inch octagon handle, 4-inch blade. Price75c

BRICK HAMMER



4-Z-6257. Forged from high grade tool steel, tempered and properly balanced. Guaranteed to be strictly first class. Weight of hammer, 2 pounds. Fitted with 12-inch selected handle. Price\$1.25

EXTRA BROAD LEATHER HANDLE TROWELS



4-Z-6221. Hammered from solid bar crucible cast steel, carefully tempered and properly ground. Guaranteed to suit the most critical bricklayer. 11-inch size is about 6 inches wider; other sizes in proportion.
Inch ... 10 10½ 11
Each...\$1.27 \$1.32 \$1.38

SUPERIOR PHILADELPHIA PATTERN TROWEL



4-Z-6223. Hammered from solid bar crucible steel, properly tempered tapering from heel to point. Ground smooth. Best trowel of its kind made.
Inch ... 10 10½ 11
Each...\$0.96 \$1.00 \$1.06

STANDARD PHILADELPHIA PATTERN BRICK TROWEL



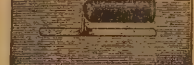
4-Z-6219. Made of high grade steel, well finished, properly shaped and fully guaranteed.
Inch ... 10 10½ 11
Each ...85c 92c 99c

STANDARD POINTING TROWELS



4-Z-6259. Hammered from a solid bar best quality cast steel. Properly tempered and accurately ground.
Inch ... 4 5 6
Each...39c 43c 46c

CINCINNATI PLASTERING TROWELS



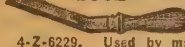
4-Z-6261. Guaranteed to suit the most critical workman. Hammered from a solid bar highest crucible steel, tempered tough and hard. Accurately ground. Guaranteed to be the best plastering trowel made.
Inch ... 10½ 11 12
Each...\$1.15 \$1.20 \$1.40

STANDARD PLASTERING TROWEL



4-Z-6203. High grade crucible steel. Properly tempered and nicely finished. Fully guaranteed.
Inch ... 10 11 12
Each...81c 78c 87c

TUCK POINTING TOOL



4-Z-6229. Used by masons and bricklayers for pointing or heading mortar or cement. Furnished in the following sizes; 3/16, ¼, 5/16, and ¾. State size wanted.....40c



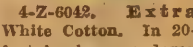
4-Z-6225. High grade crucible cast steel. Properly tempered and polished. Length, 6 inches.....45c

CORK FLOATS



4-Z-6231. Solid, selected cork. Finished smooth on both sides.
Inch ...12x4x1 12x5x1¼
Each ... 50c 68c

BRAIDED CHALK LINE



4-Z-6042. Extra White Cotton. In 20-foot hanks, one dozen hanks connected. Price per dozen hanks...\$1.50
Price for 3 hanks .44

SOCKET SCRATCH AWL



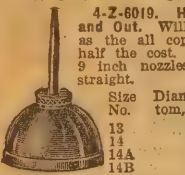
4-Z-6040. High Grade Tool Steel, Polished Beech Handle. Price15c

BEECHWOOD CHALK LINE REEL AND STEEL AWL



4-Z-6041. Price complete as per illustration18c

SEAMLESS COPPER PLATED STEEL OILERS



4-Z-6019. Heavily Copper Plated Inside and Out. Will give equally as good service as the all copper oiler, and at less than half the cost. Made with spring bottom; 9 inch nozzles are bent, other sizes are straight.

Size No.	Diam. Tom, Inches	Bot. Length, Inches	Nozzle, Inches	Price, Each
13	3½	3	3	24c
14	3½	9	9	26c
14A	3½	5	5	32c
14B	3½	9	9	40c

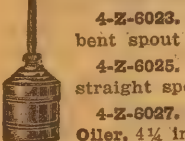
ZINC OILERS

4-Z-6021. Double Seam Bowls, Guaranteed Not to Leak. Spout as spun screw coarse round thread. Can be easily removed to fill bowl. Workmanship and quality of material are superior to any other oilers.

Size No.	Diameter Inches	Length Spout	Price Each
2½	2	6	6c
3	4	8	8c
3½	4	10	10c
4½	5	12	12c
6	5	17	17c



MOWING MACHINE OILERS



4-Z-6023. Tin Oiler, ¼ inch bent spout18c
4-Z-6025. Tin Oiler, ¼ inch straight spout15c
4-Z-6027. Copper Plated Steel Oiler, ¼ inch straight spout. 25c

QUILT FRAME CLAMPS

4-Z-6067. Ball and Socket Head on Screw. Japanned finish. 3-inch opening.
Per dozen.....\$1.40
Each12



MALLEABLE CLAMPS WITH STEEL SCREWS



4-Z-6069. Made with Swivel Head. Steel screw with cut threads. Strongest and best clamp made. Opens.
In. 3 4 5 6 8 10
Pr. 80c 83c 1.05 1.43 2.10 2.50

SIDEWALK GROOVERS



4-Z-6275. Nickel plated iron. 6 inches long. 2½ inch wide. Smoothly finished. 53c
4-Z-6277. Solid Bronze Metal. 6 inches long. 2½ inches wide\$1.30

SIDEWALK CENTERS

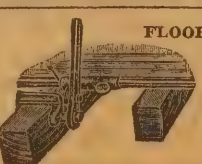


4-Z-6279. Nickel plated iron. 6 inches long. 2½ inches wide.....53c
4-Z-6281. Solid bronze metal. 6 inches long. 3 inches wide.....\$1.30

IRON TAMPER



4-Z-6269. Gray cast iron Smooth Finish. Size of face, 8x8 inch. Fitted with 4-foot hardwood handle 18-lbs. \$1.80



FLOORING CLAMP

4-Z-6057. A great labor saving device. For laying flooring. Can be used to decided advantage in laying warped or crooked floors. Will pay for itself on a single job.
Price\$1.00

SIDEWALK EDGERS



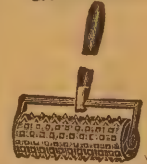
4-Z-6271. Nickel plated iron. ¾-inch radius. 6 inches long 3½ inches wide.....53c
4-Z-6273. Solid bronze metal. ¾-inch radius. 6 inches long. 3 inches wide.....\$1.30

DRIVEWAY GROOVERS



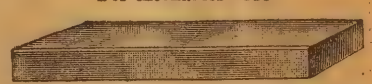
4-Z-6281. Nickel plated iron. 6 inches long. 2½ inches wide.....53c
4-Z-6283. Solid bronze metal. 6 inches long. 2½ inches wide.....\$1.30

INDENTATION ROLLERS



For roughening or indenting sidewalks. 4 inch diameter. 10 inch long.
4-Z-6265. Iron, oxidized Indentation roller.....\$3.00

HIGH GRADE OIL STONES For Mechanics' Use



EAGLE LAKE OIL OR WATER STONE

4-Z-6007. Genuine Eagle Lake Oil or Water Stone. Preferred by many on account of its extreme softness and uniformity of grit. Contains no hard spots and gives unusually good satisfaction, having a good sharp grit and can be used with either oil or water. Unmounted.
Size of Stone.....6x2x1 7x2x1 8x2x1
Price, each.....16c 20c 25c

QUICK AND EASY TOOL STONES

In Our Quick and Easy Oil Stones We Have Unquestionably the Finest and Most Perfect Artificial Stone on the Market. For putting an edge on any kind of edge tools, either mechanics or household. It is unequalled by any. As the name implies, it does its work quickly and easily as well as perfectly. Unmounted.
4-Z-6011. Size of stone....6x2x1 8x2x1
Price, each.....40c 58c

SHINGLING BRACKETS

4-Z-6063. Strong and durable. Easily put up and taken down. Require no nails or screws.
Each32c



CLAPBOARD OR LAP SIDING MARKER



4-Z-6071. ½-inch movement Marks a full line across the clapboard, exactly over edge of corner board. Adjustable to take up the wear of teeth. Great labor saving device. Price.....40c

4-Z-6075. Cast Steel Polished Jaws. Size 4½ inches. Width of jaws 1½ inches. Will open ¾ inch. Price.....49c



Premier Shovels, Spades and Scoops

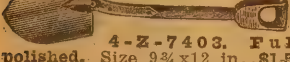
Strong and durable. Made of high grade shovel steel. Selected handles. Best ever offered for general purposes. Fully warranted.

"D" HANDLE SQUARE POINT SHOVEL.



4-Z-7401. Plain black, full polished. Sizes 9½x12 in. \$1.50

"D" HANDLE ROUND POINT SHOVEL.



4-Z-7403. Full polished. Size 9½x12 in. \$1.50

"D" HANDLE SQUARE POINT SPADE



4-Z-7405. Plain back, full polished. Size 7½x12 in. \$1.50

"D" HANDLE GRAIN SCOOP.



4-Z-7407. Western Pattern hollow back. Full polished. Size, No. 6 7 8 9 10 Length, in. 16 17 17½ 18 19 Price... \$1.78 1.87 1.92 2.05 2.10

"D" HANDLE COAL SHOVELS



4-Z-7409. Hollow back. Natural Forge Finish. Size, in. 13x14 14x14½ 14½x15½ Price... \$1.45 \$1.50 \$1.60

"D" HANDLE STEEL DRAIN SPADE.



4-Z-7411. Strongly made to stand rough usage. Length 18 in. Full polished. Price \$1.60

STEEL DITCHING OR TILING SPADES.



4-Z-7413. Specially adapted for mucky and sticky soil. Fully warranted. Size 6x18 in. \$3.45

"D" HANDLE COKE FORKS.



Superior quality. Oval tines. Fully warranted.

4-Z-7415. 10 tines, 16½ inch long, 1¼ inch wide. \$2.35

4-Z-7416 12 tines, 17½ inch long, 1½ inch wide. \$2.70

CAST IRON POST MAULS.



4-Z-7417. Full weight, width 3-foot hickory handles. Wt., lbs. 10 13 16 18 20 Price... 63c 84c \$1.00 \$1.13 \$1.26

HARRIS BROTHERS CO. 35th and Iron Streets, Chicago.

LONG HANDLE SQUARE POINT SHOVEL.



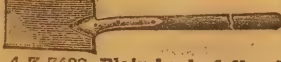
4-Z-7419. Plain back, full polished. Size 9½x12 in. \$1.50

LONG HANDLE ROUND POINT SHOVEL.



4-Z-7421. Plain back, full polished. Size 9½x12 in. \$1.50

LONG HANDLE SQUARE POINT SPADE.



4-Z-7423. Plain back, full polished. Size 7½x12 in. \$1.50

"D" HANDLE FURNACE SCOOPS.



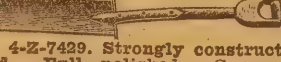
4-Z-7425. Hollow back, black finish. Size, 9x14 in. \$1.10

STEEL SNOW SHOVELS.



4-Z-7427. Long handle. Light, strong and durable. Makes an excellent general purpose shovel. Superior quality. Fully warranted. \$1.00

"D" HANDLE STEEL POST HOLE SPADE.



4-Z-7429. Strongly constructed. Full polished. Concave blade. 6 inches at point, length 18 inches. \$1.80

STEEL TILE DRAIN CLEANER.



4-Z-7431. Adjustable. Handle can be placed at any angle by adjusting the spring. When the spring is in position the blade is locked tightly and will not move or have a side motion. Blades are concave. Size of blade 4x15 inches. \$1.15 Size of blade 5x15 inches. 1.30 Size of blade 6x15 inches. 1.40

"D" HANDLE SPADING FORK



For handling and screening dirt from potatoes, heavy beets and other vegetables. Special crucible steel tines.

4-Z-7433. Plain Ferrules 90c

4-Z-7434. Strapped Ferrules. \$1.25

"D" HANDLE SCOOP FORK



4-Z-7435. For handling and screening dirt from potatoes, beets and other vegetables. Special crucible steel tines. 8 tines, 11 in. wide, 14 in. long. \$1.95

10 tines, 14 in. wide, 15 in. long. 2.30

12 tines, 13 in. wide, 16 in. long. 2.70

Premier Shovels and Spades

Superior in quality, workmanship and material. Guaranteed to be the best shovels it is possible to produce.

PREMIER "D" HANDLE SQUARE POINT SHOVEL.



4-Z-7437. Best crucible steel, solid socket, full polished blade, 9½x12 inch. \$2.50

PREMIER LONG HANDLE ROUND POINT SHOVEL.



4-Z-7441. Best crucible steel, solid socket, full polished blade, 9½x12 inch. \$2.50

PREMIER "D" HANDLE ROUND POINT SHOVEL.



4-Z-7439. Best crucible steel, solid socket, full polished blade, 9½x12 inch. \$2.50

PREMIER "D" HANDLE SQUARE POINT SPADE.



4-Z-7443. Best crucible steel, solid socket, full polished blade, 7½x12 inches. \$2.50

Post Hole Diggers and Augers

EUREKA POST-HOLE DIGGERS.

4-Z-7445. Nothing better of its kind made. 9-in. cast steel blade, properly tempered, malleable iron shank, selected split, hardwood handles. Length 5 ft. Weight about 9 lbs. \$1.93



INVINCIBLE POST HOLE DIGGER.

4-Z-7447. Blade and shanks are drop forged from one solid piece of steel. Length of blade 9 inches. Fitted with selected hardwood handles. Length 5 feet. Weight about 9½ lbs. \$1.75



Carpenters' Wrecking Bars

Three Sizes



Drop Forged

A handy, durable bar for nail pulling, ripping shingles, prying boards, etc., drop forged, 3 inch octagon steel, claw on one end and wedge points on other. Length, 30 inches; shipping weight, 5 lbs.

4-Z-2560. Price, each. .39c

4-Z-2561. 24x¼ in. Price. .36c

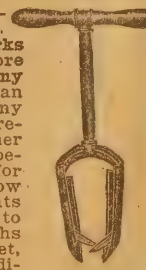
4-Z-2562. 12x½ in. Price. .20c

Pick or Matlock Handles

4-Z-6211. First grade. Length, 36 inches. .34c

IWAN'S POST-HOLE AUGER.

4-Z-7453. Works easy and more rapidly than any auger made. Can be used in any kind of soil, regardless whether wet or dry. Especially adapted for boring shallow wells. Weights range from 8½ to 24 lbs. Lengths from 4 to 6 feet, depending on diameter of auger. Size in. 6 8 9 10 Price... \$2.10 \$2.30 \$2.48 \$2.80



VAUGHN'S POST-HOLE AUGERS.

4-Z-7455. Solid steel blades which can be replaced if they become broken. Height 44 in. Weight, about 7 lbs.

Size, in. 6 Price. . \$0.95



CROWBARS.

Solid crucible steel, tempered points properly balanced, full size and strength.

Lbs. 12 .16 .20

Each \$1.05 \$1.33 \$1.73

4-Z-7457. Pinch Point

4-Z-7459. Wedge Point

RAILROAD PICKS.



4-Z-7461. Best quality cast steel, nicely finished, fully guaranteed. Wt. 5 to 6 lbs. \$1.00

ADZE EYE DRIFT PICKS.

4-Z-7467. Best quality cast steel, nicely finished.

Wt. lbs. 4 4½ 5

Price 90c 93c 96c



4-Z-7463. Cast steel adze, eye, long cutter. Wt. 5 to 6 lbs. \$1.20

4-Z-7465. Short cutter mattock. Wt. 4½ lbs. .90c

PLUMMING AT 50 PER CENT SAVING. WRITE FOR CATALOG.

BLOWERS—FORGES—BLACKSMITHS' TOOLS!

CYCLONE PORTABLE FORGE



\$11⁹⁵

While this forge is offered at an extremely low price, it has not been slighted in its construction.

Its durability is fully guaranteed. Construction: The material used is the very best. The legs are made of ¾-inch pipe, which screw firmly into the hearth and are tied together by wrought iron band to insure rigidity when in action. The lever operates a segment gear on a ratchet, which permits the reverse motion, while the drive wheel on the same shaft revolves rapidly. A leather belt connects drive wheel with the blower fan.

Your particular attention is called to the size of the hearth, which is 22 inches in diameter and 3¼ inches deep. This is an extremely popular forge, owing to the unusual size of the hearth, and we recommend it for all kinds of repair work.

Dimensions: Height of forge, 30 inches. Diameter of hearth, 22 inches. Depth of fire pan, 3¼ inches. Diameter of fan case, 9 inches.

4-Z-6511. Tornado Portable Forge. Weight about 110 lbs. **\$11.95**

4-Z-6512. Tornado Portable Forge. Same as above with hood **\$13.95**

EXCELSIOR AGRICULTURAL FORGE



\$24⁰⁰

Extra strong, well braced agricultural forge. No details have been neglected to produce a forge that will give you long service under constant use.

Special designed clutch, positive in action—no lost motion. The blast is strong and will bring the work to a welding heat in less time than any other forge of similar construction.

The lever support is a swivel, which permits lever to follow the motion of the arm.

There are no springs to get out of order. This forge is guaranteed to give you the satisfaction you have a right to expect.

Size of hearth, 23x35 inches; size of fan case, 12 in.; height, 30 inches.

No. 4-Z-6504. Price with shield, weight 180 lbs. **\$24.00**

No. 4-Z-6506. Price with half hood, weight 185 lbs. **26.50**

TORNADO PORTABLE FORGE

The best constructed and most durable low priced forge manufactured. **\$10⁵⁰**

For the farm and all light work.

The legs are made of ¾-inch pipe, firmly screwed into the hearth and are tied together with wrought iron bands. The hearth is made of the best grade, heavy cast iron, fitted with an improved tuyere iron. The lever operates a segment gear on a ratchet, which permits the reverse motion, while the drive wheel on the same shaft revolves rapidly.

A leather Belt connects the drive wheel with the blower fan; the result is a strong, lasting blast produced with very little energy.

We guarantee that this forge will give entire satisfaction.

Dimensions: Height of forge, 30 inches. Diameter of hearth, 18 inches. Depth of fire pan, 3¼ inches. Diameter of fire case, 8 inches. Weight, about 85 pounds.

4-Z-6501. Price with shield, as shown in illustration. **\$10.50**

4-Z-6503. The same in every respect as the one described above, except that it is provided with a steel hood for smoke pipe connection, instead of a shield for outside work, as shown in illustration. Weight, about 90 pounds. **\$12.00**

Price. **\$12.00**

EUREKA BLACKSMITHS' BOILER-MAKERS' AND RIVET FORGES

The Eureka forge is a strictly high grade outfit, designed especially for heavy smithing. There are no belts, ratchets, or clutches. Equipped with ball bearing fan shaft. Designed to produce a hotter fire in less time than any other blower forge on the market. Blast is strong and steady. Gears are perfectly built and enclosed in dust-proof, self-oiling case. Steel

bushed bearings; gears and pinions large and heavy; easy running and durable. Furnished with heavy Tuyere iron, 14x11¼ inches and 4 inches deep, requiring no claying. Crank turns forward and backward to produce the blast. Hearth is deep with low sides almost to level with the Tuyere for long shafts or forgings when working with a small fire.

Size of hearth, 23x35 inches; size of fan case, 12 inches in diameter; height, 30 inches, with half hood for indoor work, weight, 225 lbs.

No. 4-Z-6508. Eureka blacksmiths', boiler-makers' and rivet forge, complete as described. **\$35.00**



\$35⁰⁰

ANVIL TOOLS

Made of highest grade cast steel. Are full weight, properly tempered, well finished and the best that it is possible to manufacture. Your money back on any tools not entirely satisfactory. We guarantee a saving of 30 to 50%.

BOTTOM SWAGES

4-Z-6821.		
In.	Wt. Lbs.	Ea.
1/4	2 1/2	25c
1/2	2 1/2	27c
3/4	2 1/2	28c
1	2 1/2	29c
1 1/4	2 1/2	33c
1 1/2	2 1/2	35c
1 3/4	3	38c
2	3 1/2	42c



TOP SWAGES.

4-Z-6943.		
In.	Wt. Lbs.	Ea.
1/4	2	23c
1/2	2 1/2	26c
3/4	2 1/2	27c
1	2 1/2	32c
1 1/4	2 1/2	33c
1 1/2	2 1/2	34c
1 3/4	2 1/2	35c
2	3 1/2	44c



BOTTOM FULLERS.

4-Z-6983.		
In.	Wt. Lbs.	Ea.
1/4	2	25c
1/2	2 1/2	26c
3/4	2 1/2	27c
1	2 1/2	28c
1 1/4	2 1/2	35c
1 1/2	2 1/2	36c
1 3/4	3	37c
2	3 1/2	39c
2 1/4	3 1/2	41c



TOP FULLERS.

4-Z-6981.		
In.	Wt. Lbs.	Ea.
1/4	2	26c
1/2	2 1/2	29c
3/4	2 1/2	30c
1	2 1/2	31c
1 1/4	2 1/2	35c
1 1/2	2 1/2	34c
1 3/4	3	41c
2	3 1/2	42c
2 1/4	3 1/2	45c



SQUARE FLATERS

4-Z-6985.		
In.	Wt. Lbs.	Ea.
1	2 1/2	27c
1 1/4	3	41c
1 1/2	3 1/2	45c



STRAIGHT HARDIES

4-Z-6923.		
Shank, In.	Wt. Lbs.	Ea.
1/2	8 ozs.	15c
3/4	12 ozs.	19c
1	1 lb.	45c
1 1/4	1 1/2 lbs.	53c
1 1/2	1 1/2 lbs.	60c



TCE HARDIES.

4-Z-6945. For cutting off heels of shoes.		
Shank, In.	Wt. Lbs.	Ea.
1/2	7/8	7c
3/4	1	10c



HOT CUTTER.

4-Z-6991. Without handle. Cuts 1 1/2 inch.		
Weight, Lbs.	Price	
2 1/2	80c	



COLD CUTTER.

4-Z-6989. Cuts 1 1/2 in.		
Weight, Lbs.	Price	
2 1/2	80c	



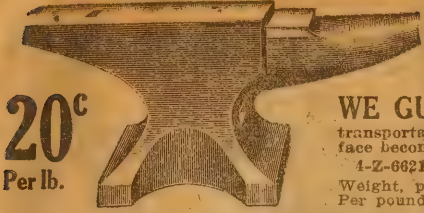
SQUARE SET HAMMERS.

4-Z-6987.		
In.	Wt. Lbs.	Ea.
1 1/4	2 1/2	\$0.65
1 1/2	2 1/2	1.00
1 3/4	4 1/4	1.23



HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

PREMIER WROUGHT IRON ANVILS



20^c
Per lb.

THE HIGHEST GRADE American wrought iron anvils ever offered. Top and bottom are each made of one solid piece of the toughest iron. The body is made in two pieces, welded at the waist by improved methods. The face is made of one solid piece of highest grade tool steel, properly tempered and securely welded to the body and is guaranteed not to come loose. The face is planed after the anvil is finished and is therefore smooth. Has wide base, perfectly shaped horn and heel.

WE GUARANTEE every anvil to give perfect satisfaction. Any anvil that is not satisfactory can be returned to us within thirty days and we will refund the amount paid, including transportation charges. We further guarantee that should any Premier Anvil break at the waist or the steel face become loose within one year from date of purchase, it will be replaced without charge.

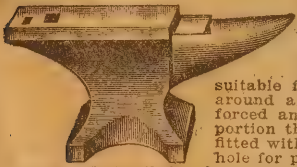
4-Z-6621. Premier wrought iron anvils.

Weight, pounds,.....	200 to 220	170 to 190	120 to 165	80 to 119	70 to 79	60 to 69	50 to 59
Per pound.....	20c	21c	22c	23c	24c	25c	26c

4-Z-6621½—200 to 220 lbs., per lb.....	11c
170 to 190 lbs., per lb.....	15c
120 to 165 lbs., per lb.....	16c
80 to 110 lbs., per lb.....	17c
50 to 80 lbs., per lb.....	18c

A limited number of wrought iron anvils, the same as the anvils described above but which show minor imperfections and cannot be classed as a strictly perfect anvil. For all practical use these anvils will answer every requirement.

\$4.20 CAST IRON ANVILS \$4.20

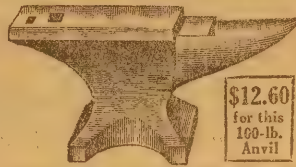


4-Z-6625. These anvils are made of a superior pig iron. Face accurately machined and chilled, therefore giving a smooth Anvil surface. This Anvil is for light work, and is not suitable for heavy forging. Is a first class all around agricultural Anvil. The waist is reinforced and the horn is slightly heavier in proportion than in a wrought iron Anvil. Anvil is fitted with ¾-inch hole for hardy also a ½-inch hole for punching. We offer this as a first class

low priced Anvil for farmers, plumbers, locksmiths, repair men, etc., and know that we offer more for the money than it would be possible to get elsewhere. In three sizes only.

Weight, pounds.....	50	70	100
Price, each.....	\$4.20	\$5.90	\$8.75

PERFECTION STEEL FACED CAST IRON ANVILS



4-Z-6623. The face of this anvil is one solid piece of tool steel, thoroughly welded to body of anvil by a patented process and is then accurately ground and tempered. The horn is covered with steel and its extremity is made entirely of tough untempered steel. The body of the anvil is made of superior pig iron. The face and the horn are warranted to be welded thoroughly to body and not to separate. They are designed to give first-class service but will not stand the hard wear as will a wrought iron anvil.

Weight, lbs.....	20	30	40	50	60	70	80	100
Each.....	\$4.00	\$5.65	\$6.65	\$7.60	\$8.20	\$9.15	\$10.00	\$12.60

EUREKA BLACKSMITH BLOWER FOR GENERAL WORK



\$18⁷⁵

This blower is made for all ordinary purposes for blacksmiths, wheel wrights, contractors, farmers and for any use where a light, easy running, efficient and durable machine is required at a reasonable price.

Built with direct drive and produces a strong, steady blast. The gears are perfectly cut and are enclosed in dust proof, self-oiling case. Designed so that the crank may be turned forward or backward to produce the blast.

No. 4-Z-6616. 46-in.; fan case 12 in. in diameter with Tuyer iron and pipe complete. Weight 140 lbs., price..... **\$18.75**

PEERLESS DIRECT DRIVE BLACKSMITH BLOWER



\$27³⁰

This splendid blower is built with direct drive. The gears are cut in the most accurate manner and fitted to insure a light, easy running blower at all times. Made with ball bearings—no small gears or pinions. The gearing is enclosed in a dust proof case and runs in a bath of oil. The crank turns forward or backward to produce the blast. Equipped with heavy Tuyer iron 14x11½ in. overall and 4 in. deep. A strictly high grade blower suitable for heaviest work. Carries the indorsement of many particular users.

No. 4-Z-6600. Height 46 in.; fan case 12 in. in diameter, with heavy Tuyer iron and pipe complete. Weight 165 lbs., price..... **\$27.30**

Warren's Patent Tuyere Iron



4-Z-6631. Very simple and easily adjusted. Blast is regulated by simply revolving the ball, which has three unequal sides. Open the bottom valve and all cinders and ashes drop out. Weight about 31 lbs.

Price..... **\$3.45**

Clark's Tuyere Iron



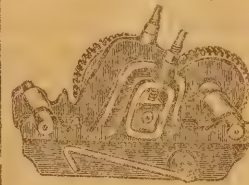
Made of best quality gray iron with dump and shaker. 4-Z-6611. Medium size, wt. 22½ pounds. Price..... **\$2.30** 4-Z-6613. Large size, wt. 27 pounds. Price..... **\$2.70**

Single Duck Nest Tuyere Iron



4-Z-6619. Made of the best quality of gray iron. Weight 11 pounds. Price..... **98c**

Premier Geared Tire Bender



A high grade machine with turned rollers and bearings, and a first-class tool in every respect. Can be easily adjusted for tires of different thickness. Heavily constructed and guaranteed to do satisfactory work up to its capacity.

4-Z-6615. Will bend 5-inch tire or smaller to a circle of 24 inches in diameter or larger. Price..... **\$15.35**

Perfection Geared Tire Bender



All journals are provided with steel roller bearings which make them very easy running. The rolls are provided with steel roller bearings perfectly round and true, which insures good work.

4-Z-6607. Size No. 2. Will bend 3¼-inch tire or smaller to a circle of 24 inches in diameter or larger. Price with crank..... **\$10.25**

4-Z-6609. Size No. 2½. Will bend 4¼-inch tire or smaller to a circle of 24 inches in diameter or larger. Price with crank..... **\$11.35**

PREMIER BALL BEARING GEAR—Self Feed Post Drill WITH INTERMEDIATE GEAR

With Intermediate Gear. A perfect drilling machine. Is a simple, powerful, high grade all-around drill, designed for quick and easy running and operation. Has all the good features of other drills in improved form.

Includes many high priced features. Beauty of design, excellence of finish, ball bearing automatic feed, ground bearings, intermediate gear—these are features found only on drills usually sold at much higher prices.

All parts readily detachable. No riveted pins holding spindle to feed screw, no washer-bearings and riveted studs for the gears. It must not be confused with drills offered at similar prices. It is so much superior that it is in a class by itself. All parts are interchangeable. The main gear revolves on a movable stud, arched into the frame and having a hexagon head. The intermediate pin also turns on a steel stud and is held in place by a collar and fillister head screw.

The Gears are Machine Moulded, cleaned with sand blast which insures smoother and more perfect running—the nearest possible approach to cut gears.

Ball bearing feed. The nut connecting the feed screw to the spindle is complete within itself and is ball bearing, thus the friction is greatly minimized and the power required for running is reduced from 25 to 50 per cent. The ball bearings also overcome the necessity of frequent oiling. The discs or cups carrying the balls are of the best hardened steel.

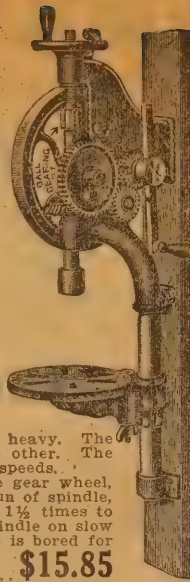
Has adjustable self feed. The automatic feeding device gives nearly a continuous feed, thus saving a big item in drill bits. The device is located back of the spindle and operated by a cam inside of the main gear wheel. The speed can be increased or diminished by simply turning the thumb screw. The table is solid and planed perfectly smooth. Can be raised or lowered, swung to either side or removed entirely for special work.

Two speeds. No left hand turning. One for light work and the other for heavy. The change is made by simply removing the crank hub from one shaft to the other. The intermediate gear permits turning the crank in the same direction on both speeds.

Dimensions: Total height, 45 inches. Diameter of table, 10 inches; drive gear wheel, 6 inches. Fly wheel, 14 inches. Spindle, 1 inch. Column, 1 9/16 inches. Run of spindle, 4 inches. Greatest distance of spindle to table, 13 1/2 inches. Spindle turns 1 1/2 times to one turn of crank on fast speed and crank turns 1 1/2 times to one turn of spindle on slow speed. Drills to center of 16-inch circle and up to 1 1/2 inch holes. Spindle is bored for 1/2-inch round shank drills. Weight, crated, about 115 pounds.

4-Z-6701. Price.....

\$15.85



BLACKSMITHS' HAND FEED POST DRILLS

Substantial, rigid, powerful and durable. Simple in construction. We guarantee that this drill will do equally as good work as any of the higher priced drills, and is an indestructible tool. For use on farms and in small shops. The crank is adjustable to long or short turn. Drill table can be raised, lowered or swung out of the way so fork can be used to hold wheels. It is much more practical than a bench drill and will permit a wider range of work. Upright column and feed screw are made of special steel. The bearings are long and heavy, making it the easiest running and most practical and satisfactory small drill on the market. The drill spindle is 1-inch steel and bored for 1/4-inch, round shank drills. Feed has an up and down run of 3 inches. Height of drill, 36 inches. Diameter of upright column, 1 1/2 inches; diameter of gear wheels, 6 1/2 inches. Greatest distance of spindle to table, 10 1/2 inches. Drills 3/4-inch holes to a center of a 12-inch circle. Weight, crated about 60 lbs.

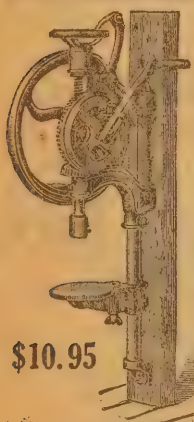
\$7.70

4-Z-6718. Price.....

\$7.70



\$10.95 Perfection Double Geared Self Feed Post Drill



\$10.95

We claim that this is the best drill ever offered at the price and will meet with the requirements of the general shop and blacksmith work. It is constructed in the best possible manner and the material and workmanship cannot be excelled. The crank is adjustable to long or short turn. The self-feed attachment can be set fast or slow speed or thrown out when self-feed is not required. The drill table can be raised, lowered or swung out of the way, or can be taken off entirely. The spindle has a run of 3 inches. Height of drill, 35 inches. Diameter of upright column, 1 1/2 inches; diameter of drive gear, 8 inches; diameter of table, 6 inches. Greatest distance of spindle to table, 10 1/2 inches. Fly wheel, 14 1/2 inches in diameter. Drill spindle is 3/4 inch steel and is bored for 1/2 inch round shank drills. Drills 1/2-inch holes to a center of 12-inch circle. Weight crated about 80 pounds.

4-Z-6703. Price.....

\$10.95

\$14.50 Perfection Double Geared Self Feed Post Drill



\$14.50

Especially constructed to meet the requirements of shops where heavy work is performed. This drill will do more work than any hand power post drill of a similar style on the market. All bearings are turned out of solid metal to a workfit. The drill has two speeds, one for light work—the other for heavy. The change can be made instantly by changing the handle from one shaft to the other. Table can be raised or lowered, turned to side or removed if desired, and the fork used as a wheel holder. The automatic feed device is located back of the spindle and is worked by a cam, giving almost a continuous feed, making it impossible for the drill to jam into the work. The lower column is properly aligned with the spindle and the drill table is at right angles with the spindle, which causes the drill to turn free and easy. Run of spindle 3 inches. Bored for 1/2-inch round shank drills. Drills 1 1/2-inch holes to center of a 15-inch circle. Weight, about 125 lbs.

4-Z-6707. Price.....

\$14.50

Premier Ball Bearing Blacksmiths' Combined Power and Hand Drill

The same construction as our 4-Z-6707 Premier ball bearing geared self-feed post drill, with intermediate gear and is a first class equipment for shops that are provided with power, this drill being fitted with fly wheel and crank can be run by hand equally as well as by power. The easiest running and fastest drilling post drill ever offered. The automatic feeding device gives nearly a continuous feed, so that the drill does not jam into the work, thus making a big saving in drill bits. The speed can be increased or diminished by simply turning thumb screw. Drill is extra heavy construction throughout and will do equally as good work as many drills that are sold for considerably more. Run of spindle, 3 inches. Diameter of spindle, 1 inch. Bored for 1/2-inch, round shank drills and drills to 1 1/2-inch holes to a center of 15-inch circle. Weight crated, 135 pounds.

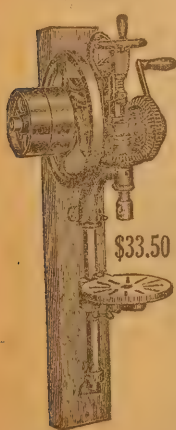
4-Z-6715. Price.....

\$17.65



\$17.65

Self Feed Blacksmiths' Post Drill



\$33.50

Strongly constructed and especially adapted for heavy work. Used largely by blacksmiths, boiler makers, bridge builders and elsewhere where a high grade heavy drill is required. For belt and hand power. Fitted with tight and loose pulleys and fly wheel. It is equipped with a special automatic feeding device which is located back of spindle and is worked by a cam on inside of main gear wheel. This cam is constructed so as to give nearly a continuous feed, made for heavy service. Simplicity and small number of parts are some of the features that go to make this drill so popular. All bearings are extra long and turned out of solid metal. The alignment is absolutely perfect and will not swing and will run easier and faster than any other drill of a similar style in the market. Height of drill, 45 inches. Diameter of table, 11 inches. Diameter of spindle, 1 1/2 inches. Run of spindle, 3 inches. Size of columns, 2 inches. Greatest distance of spindle to table, 16 1/2 inches. Spindle turns 1 1/2 times to one turn of crank on fast speed and crank turns 1 1/2 times to one turn of spindle on slow speed. Spindle is bored for 1/2-inch round shank drills. Drills 1 1/2-inch holes to center of 18-inch circle. Weight, 190 lbs.

4-Z-6705. Price.....

\$33.50

Goodell's Bench Drills

Constructed in the most substantial manner with solid iron frame. Steel feed screw cut gears and adjustable table. Well made and fitted in the best possible manner, with a special vise which can be used in place of the table for holding the work. The jaws open 1 1/2 inches and operate on right and left. Only changed by shifter conveniently located. Steel feed screw. A special vise; jaws open 2 inches and operate on right and left hand screw. Adjustable table which can be quickly removed and replaced with the vise for holding the work. 3-jawed chuck, capacity, 0 to 3/4-inch. Height from table to feed wheel, 13 inches. Shipping weight about 13 pounds.

4-Z-6708. Price complete with vise as above described.....

\$8.40

4-Z-6709. Price, without vise.....

\$6.75

A very durable and strong tool. For light and medium work. Heavy, solid iron frame, cut gears and two different speeds. Only changed by shifter conveniently located. Steel feed screw. A special vise; jaws open 2 inches and operate on right and left hand screw. Adjustable table which can be quickly removed and replaced with the vise for holding the work. 3-jawed chuck, capacity, 0 to 3/4-inch and 3 fluted drills, sizes from 1/8 to 3/4-inch. Height from table to feed wheel, 18 inches. Shipping weight 18 lbs.

4-Z-6711. Price, complete as described.....

\$12.15



Green River Shoeing Vise and Bolt Header, \$16.50

Forms both sharp and straight calks without changing the die. Fitted with bolt heading attachment which does not interfere with operation of vise. Dies made of high grade tool steel, properly shaped. Heads bolts any length up to 24 inches. Weight about 150 pounds. Size of bolt heading dies, 1/4, 3/8, 1/2, 5/8 and 3/4 inch. Complete for shoeing and bolt heading.

4-Z-6719. Price.....

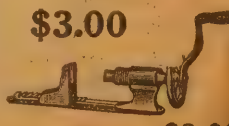
\$16.50

Horizontal Bench Drill

Blacksmith and farm use. A strong durable tool, which will give excellent service. Drill spindle bored for bit stock drill No. 4-Z-6807. Weight, 29 pounds.

4-Z-6721. Price.....

\$3.00



BLACKSMITHS' MACHINISTS'

VICES

STEEL BEAM BENCH CLAMP RAPID ACTING COMBINATION VISES

BLACKSMITHS' SOLID BOX VISES.

The strongest and best made solid box vise possible to produce. The jaws are each forged from one piece of steel and are faced with crucible tool steel tempered to stand the pressure. The screws are made from heavy steel screw stock threaded on automatic machines, insuring uniformity. The box is fitted with special collars to prevent binding the screw and stripping the thread. 4-Z-7201. Every vise fully guaranteed

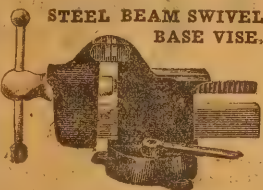


5 Lbs., Width of Jaws 3½, Each,	\$ 8.50
0 " " " 4 " "	9.25
5 " " " 4½ " "	9.70
0 " " " 4½ " "	10.15
0 " " " 4½ " "	11.60
0 " " " 5½ " "	13.25
0 " " " 5½ " "	15.45
0 " " " 6 " "	17.65
00 " " " 6½ " "	19.60

OUR
VICES
COMBINE
HIGH
QUALITY
WITH
LOW
PRICE

4-Z-7203. This STEEL BEAM SWIVEL BASE VISE.

This vise has a solid steel beam which gives it strength. Being fitted with a swivel bottom, it can be turned rapidly either right or left. This movement is securely fastened with turn of lever.



Width of Jaws, Inches	2½	3	3½	4
Opens, Inches	12	3	4	6
Weight, lbs.	13	15	20	32
Price Each	\$4.05	\$4.95	\$6.30	\$9.20

STEEL BEAM VISE.



4-Z-7205. This vise is of very strong construction and is made with solid steel beam. The handles are of cold rolled steel and the jaws tempered steel. Furnished with bolt and nut and can therefore

be used as a swivel as well as a stationary vise.	
Width of Jaws, Inches	2½ 3 3½ 4
Opens, inches	12 3 4 6
Weight, lbs.	11 13 19 30
Price Each	\$3.40 \$4.30 \$4.70 \$7.40

HAND SHAVED OCTAGON HICKORY AXE HANDLES



4-Z-6201. Made of strictly clear, selected, thoroughly seasoned second growth, white hickory. The best handle possible to produce, properly shaped, sand papered and polished finish. Length 36 inch. Each57c

HAND SHAVED OVAL HICKORY AXE HANDLES



4-Z-6203. Made of strictly clear, selected, thoroughly seasoned second growth, white hickory. The best handle possible to produce, properly shaped, sand papered and polished finish. Length 36 inch. Each54c

TURNED HICKORY SINGLE BIT AXE HANDLES

4-Z-6205. First Grade. Length, 36 inch. Each29c

BROAD AXE HANDLES

4-Z-6207. First Grade Only. Reversible for right or left hand. Length, 34 inch. Each34c

DOUBLE BIT HICKORY AXE HANDLES

4-Z-6209. First Grade. Length, 36 inch. Each29c

PICK OR MATTOCK HANDLES

4-Z-6211. First Grade. Length, 36 inch. Each34c

PREMIER COMBINATION ANVIL, VISE, DRILL AND HARDIE

This useful combination of tools is designed to meet all requirements for farmers, mechanics, mills, mines, in fact it is useful in every home. It consists of a vise, drill, anvil and hardie. Jaws of the vise open 6 in. Width 3½ in. and are faced with steel.

Drills holes up to ½ in. ½-in. round shank drills are used in connection with this tool.

Weight about 50 pounds.

4-Z-7221. Price complete, without drill bits.

\$4.50



\$4.50



\$750

SOLID JAW MACHINISTS' BENCH VISES.

4-Z-7223. The metal used is an alloy mixture, very tough, making the strongest vise possible to manufacture. Reinforced where the strain is heaviest. Screws and handles are cold rolled steel. Jaws are heavy tool steel carefully tempered. Every vise is fully guaranteed. Stationary bottom.

Width of jaws Inches	Opens Inches	Wt., lbs.	Price Each
3	4½	24	\$7.50
3½	5	28	8.45
4	6	42	9.55
4½	6½	55	11.60
5	7½	72	15.00

STANDARD SWIVEL VISE

4-Z-7225. This vise can be turned in any position on an axis parallel with the floor and is locked by a clamping bolt.

Width of Jaws	Opens	Weight	Price Each
3"	4"	28 lbs.	\$ 9.75
3½"	5"	38 lbs.	11.25
4"	6"	54 lbs.	12.75
4½"	6½"	65 lbs.	15.00
5"	7½"	90 lbs.	22.50
5½"	8½"	120 lbs.	28.50
6"	10"	136 lbs.	39.00
7"	12"	240 lbs.	52.50



BENCH CLAMP VISES.



4-Z-7215 These small vises are made to clamp to a table or bench. They are very handy and well made. The top of the jaws and face and anvil are ground and polished. The sliding jaw is made with a deep machine cut thread which works smoothly and holds the work firmly.

Width of Jaws	Opens	Price Each
1½	1½	\$0.65
2	2	1.15



OVAL SLIDE PARALLEL BENCH VISES

4-Z-7227 The strongest and best finished oval slide vise manufactured. Has tool steel jaws and wrought screw, accurately cut and fitted. Adapted for any kind of light work.

Width of Opens	Jaws Inch	Wt., lbs.	Each
2½	3½	8	\$2.45
3	4	14	2.95
3½	4½	24	3.70



COMBINATION VISE ANVIL AND PIPE VISE.

4-Z-7229. This Vise is intended only for light work and is the best finished vise of its type on the market. Made of cast iron with chilled face. Width of jaws 3 inches, opens 5 inches. Weight 26 pounds. Price\$2.15

HAMMER HANDLES

4-Z-6233. First grade only. Length, 14 inch. Each7c

HATCHET HANDLES

4-Z-6235. First grade only. Length, 14 inch. Each7c

BROAD HATCHET HANDLES

4-Z-6241. First grade only. Length, inch. 16 17 18 Each9c 10c 11c

RIVETING HAMMER HANDLE

4-Z-6243. First grade only. Length, 14 inch. Each7c

POST MAUL HANDLES

4-Z-6245. First grade only. Length, 36 inch. Each20c

SLEDGE HANDLES

4-Z-6237. First grade only. Length, 34 inch. Each22c

MACHINISTS' HAMMER HANDLES

4-Z-6239. First grade only. Length, 16 inch. Each7c

BLACKSMITHS' HAMMER HANDLES

4-Z-6247. First grade only. Length, 16 inch. Each7c

ADZE HANDLES

4-Z-6249. First grade only. Length, 34 inch. Each25c

Blacksmith's Combination Outfit

Featuring Newest Additions
and All Latest Improvements

SIX TOOLS IN ONE!

- 1—Forge
- 2—Vise
- 3—Anvil
- 4—Pipe Vise
- 5—Drill Press
- 6—Emery Grinder

\$19⁹⁵

This blower-head is detachable from the forge on this machine and can be mounted in an instant in front on the vise. In this way the same gears are engaged as a grinder and drill press as shown on cut. This grinder has three distinct speeds for light, medium and heavy cutting. The grinder gears are all cut, as they are the same gears used on the forge blower.

The emery wheel is screwed on the stud between the vise jaws attached to the high speed gear on this gear box and two substantial bearings—one on each side of the vise jaws—support this wheel, making it a rigid, practical, durable grinder, something that no other combination tool has.

The vise on this combination tool is serviceable, well made, chilled face wherever necessary; the jaws for the pipe vise are also chilled.

The screw is accurately cut and two heavy shafts support the vise so that the jaws meet perfectly without lost motion.

To convert this machine into a drilling machine, the emery wheel is screwed off the shaft and the anvil on top removed, and the drill plate laid on top of the vise which fits perfectly and lays rigid for drilling. The drill bit is inserted in the socket, which takes one-half inch shank bits, and three distinct speeds for wood, iron, light, medium and heavy work. The three speeds on the drill make a practical, silent, smooth-running drill, the gears all being cut, whereas other outfits have cast gears on the drill attachment with one speed only.

The pipe vise operates without any change whatever. No parts are removed or lost and this machine takes pipe up to two inches.

The height of this machine to the top of the forge pan is 26 inches; to the top of the stand on which the vise and anvil are mounted is 30 inches above the floor, and the vise and anvil alone weigh over 100 pounds.

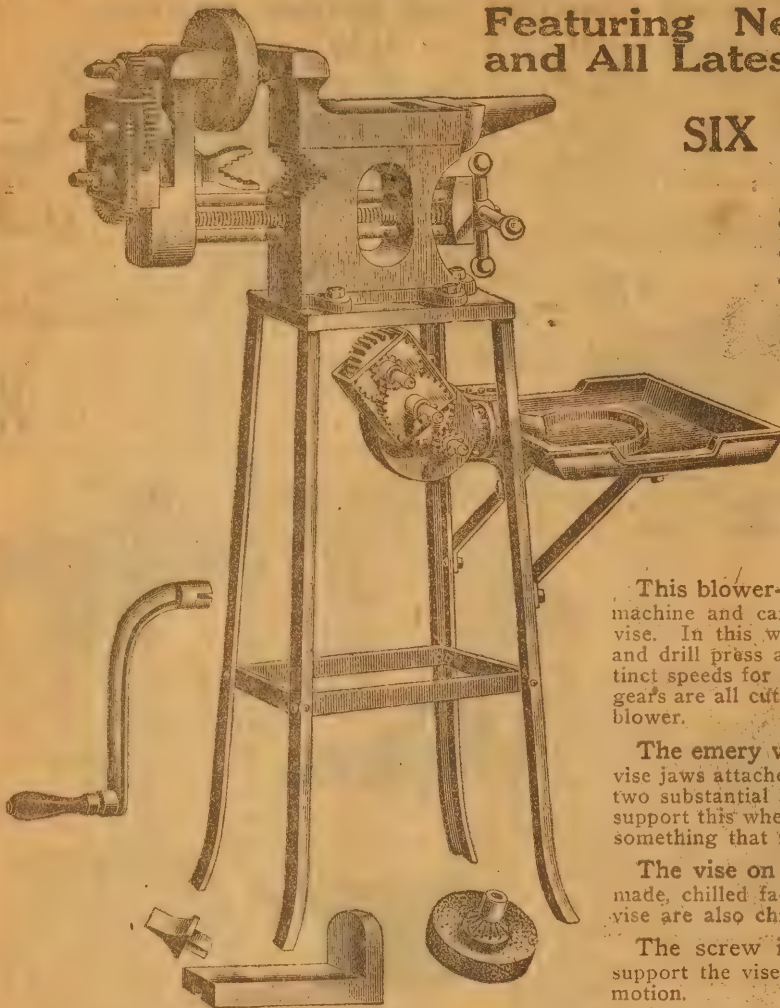
The legs are angle steel, well riveted to the top plate and tool tray, and the two steel rods support the forge pan.

This is the most practical blacksmith outfit on the market, furnished complete with one 6x1" emery wheel, and one Hardie, as illustrated. Shipped from Chicago Warehouse.

4-Z-974.

Price complete

\$19.95



This splendid combination Blacksmith Outfit, equipped with Forge, Vise, Anvil, Pipe Vise, Drill Press and Emery Grinder, is strictly a high grade combination tool that is built for service.

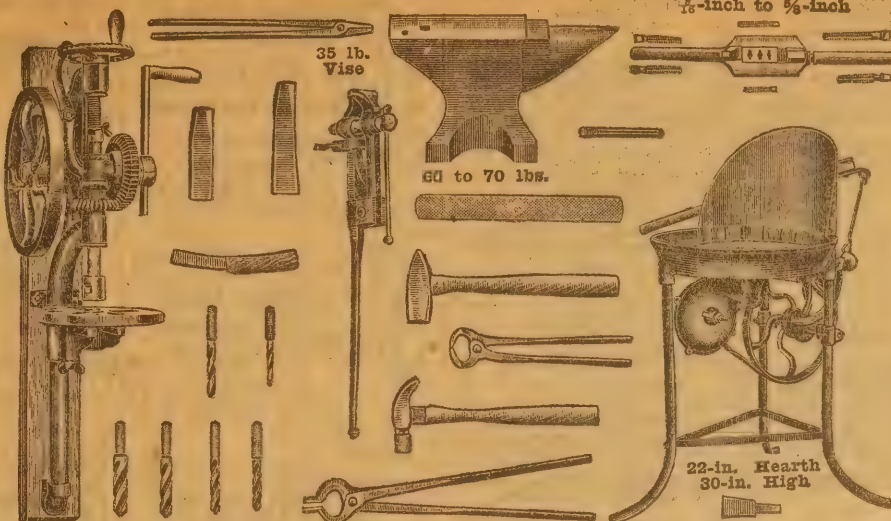
The gears are all cut. The forge pan is 12"x14", large enough to take a plowshare. This pan is cut away so that a plow-share can be put into it. The Blower-head attached is a real cut gear, high speed outfit that runs silent and is speeded high enough to produce a white pressure heat so that welding can be done on any work the farmer is able to handle.

Detailed Dimensions

Height over all.....	41	inches
Height to top of Forge Hearth.....	26	"
Width of Vise Jaws.....	4	"
Extreme opening of Vise Jaws.....	4 1/2	"
Capacity of Pipe Vise.....	3	"
Capacity of Drill Press.....	1 1/2	"
Greatest distance from Spindle to Table.....	11	"
Spindle bored to take.....	3/4	"
Face of Anvil.....	3/4	"
Size of Hardie.....	12"x14"	
Depth of Forge Hearth.....	2	"
Speeds obtained by gearing.....	1 to 1	
	1 to 4	
Size of Emery Wheels.....	8x1"	
Floor Space.....	12"x16"	
Weight.....	185	pounds

Blacksmiths' Complete Tool Outfit

Designed
for the
farm and
workshop



\$59.95

With this outfit you are prepared for emergency work of almost any description. A breakdown during your busy season is a serious matter. You can save time and money if your shop is equipped with these high grade tools. A careful comparison will convince you of the exceptional value which we offer in this outfit. Our Eureka Blacksmiths' Tool Outfit consists of the following tools:

FORGE—Our Tornado Portable Forge. Diameter of hearth 22 inches. Diameter of fan case 8 inches. Weight about 95 lbs.
ANVIL—Solid Cast Iron Anvil, with steel face and horn, welded to the body and warranted not to separate. Weight 60 pounds. Cannot be excelled for light and medium work. Will answer every purpose of a wrought iron anvil.

POST DRILL—Our Perfection Double Geared Self-Feed Post Drill, superior in construction and workmanship. Takes 1/2-inch round shank bits, drills 1/4-inch holes to center of a 12-inch circle.

STOCKS AND DIES—Cuts 5/8 to 1-inch. 14, 18 and 22 threads to the inch. 6 taps and 3 sets of dies.

VISE—Solid Box Wrought Blacksmiths' Vise, with tool steel jaws. Weight 35 pounds.

We Also Include Blacksmiths' Hand Hammer. Weight two pounds, with selected hickory handle. **Farriers' Knife**. Interchangeable, polished blade. Made of the best English steel. **Farriers' Hammer**. Made of high grade crucible steel with selected hickory handle. Weight about 14 ounces. **Hot Cutter**. Cuts 1 1/2 inches. Weight 2 1/2 pounds. **Cold Cutter**. Cuts 1 1/2 inches. Weight 2 1/2 pounds. **6 1/2-inch Round Shank Drill Bits**, to fit post drill, sizes 1/2, 3/4, 1, 1 1/4, 1 1/2 and 1 3/4 inches. **Rasp**. 14-inch crucible steel horse rasp. **Blacksmiths' Finchers**. Length 14 inches. Made of high grade steel. **Tongs**. One pair 20-inch Straight Lipped Tongs. **Cold Chisel**. Octagon tool steel. 1/2-inch cut. **Hardy** to fit anvil.

ORDER NO. 4-Z-6303. Eureka Blacksmiths' Tool Outfit. Price... \$59.95

Straight Shank Twist Drills



High Grade Straight Shank Drills. Made for machinists' use, from finest tool steel used in the manufacture of drills. Each drill ground to gauge, finely tempered and guaranteed to drill more holes than any other twist drill made. To be used in connection with drill chuck for round shank drills. They cannot be used in a common bit brace. Shanks for these drills are the same diameter as the drill.

4-Z-6805. Straight shank twist drills.

Diameter	1/8"	3/16"	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"
Length, inches.....	2 1/2	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4	2 3/4
Each.....	10c	11c	11c	11c	11c	11c	11c	11c	11c	11c	11c	11c	11c	11c	11c	11c	11c
Diameter	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"	2 3/4"	3"	3 1/4"	3 1/2"	3 3/4"	4"	4 1/4"	4 1/2"	4 3/4"	5"	5 1/4"	5 1/2"
Length, inches.....	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
Each.....	17c	18c	19c	20c	22c	24c	25c	27c	28c	30c	32c	34c	36c	38c	40c	42c	44c
Diameter	5"	5 1/4"	5 1/2"	5 3/4"	6"	6 1/4"	6 1/2"	6 3/4"	7"	7 1/4"	7 1/2"	7 3/4"	8"	8 1/4"	8 1/2"	8 3/4"	9"
Length, inches.....	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Each.....	38c	41c	44c	48c	53c	58c	63c	69c	75c								



Straight Shank Twist Drill Set \$10.60

4-Z-6802. Set of straight shank twist-drills 1/8 to 1/2 by 64ths. Mounted on metal blocks. Each hole is stamped with size of drill, also decimal equivalent and tap drill size. Price..... **\$10.60**

Post Drill Chucks



Made with half-inch straight shanks and will fit any of our post drills. Straight shank twist drills are used in connection with these chucks.
4-Z-6809. Holds drills 3/4 in. and smaller. \$2.00
4-Z-6811. Holds drills 1/2 in. and smaller. 2.60

Knife Handle Monkey Wrenches



4-Z-6825. Machinists' Pattern. Designed especially for mechanics' use. All parts are made of the very best material accurately fitted and every wrench warranted.
Length, inches. 6 8 10 12 15 18
Price, each.....95c \$1.15 \$1.40 \$1.80 \$2.45 \$3.10

Machine Counter Sinks

4-Z-6823. Half-Inch Round Shank. Will fit any of our post drills.
Size, in. 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Each.....40c 60c

Perfect Handle Wrench



4-Z-6831. Entire Bar Drop Forged From One Piece of Steel. Fitted with a special waterproofed wood "Perfect Handle" locked in under pressure and will not split or crack. Made with reinforced bar. The strongest and best wrench on the market. Guaranteed to Give Entire Satisfaction, or Money Refunded.
Length, in. 6 8 10 12 15 18 21
Size, in. 1/2 3/4 1 1 1/4 1 1/2 1 3/4 2
Price.....\$1.00 \$1.20 \$1.50 \$1.89 \$2.57 \$3.24 \$3.90

Adjustable "S" Wrench

4-Z-6833. High grade Tool Steel jaws, malleable iron frame. Suitable for work in close places. Made to stand heavy work.
Length, inches.....6 8 10 12 14
Opens, inches.....4 6 8 10 12 14
Price, each.....70c 90c \$1.05 \$1.70 \$2.25

4-Z-6827. Made of Extra Heavy Forged Steel. Bar and head forged from one piece. Deep milled screw thread. Steel knurl opens full. Every wrench fully warranted.
Length, inches.....6 8 10 12 15
Price, each.....63c 75c 88c \$1.15 \$1.50

BLACKSMITHS' AND HORSESHOERS' TOOLS

BLACKSMITHS' STRAIGHT LIP TONGS.

Made of best quality drop forged steel.
4-Z-6995. Length, 20 in. 75c
4-Z-6927. Length, 22 in. 80c

DROP FORGED BOLT TONGS.

4-Z-6929. All in one piece, no weld.
Takes bolts, inches..... 5 3/4 5/8
Length, in. 13 20 22
Each 67c 70c 80c
Takes bolts, in. 3/4 7/8 1
Length, inches. 22 24 24
Each 81c 87c 88c

DROP FORGED FARRIERS' TONGS.

4-Z-6931. Solid steel, oil finished. Size 16" 60c

DROP FORGED HOOF PARSERS.

4-Z-6935. Made of best quality of tool steel and properly tempered. Fully warranted.
Length, 12 in. \$2.15
Length, 14 in. 2.60

HOT CUTTER. COLD CUTTER.

4 - Z - 6991. Without handle. Cuts 1 3/8 inch weight, 2 1/4 lbs. 85c
4 - Z - 6989. Cuts 1 3/8 inch weight, 2 1/4 lbs. 85c

HORSESHOERS' TOE KNIFE.

Made of solid cast steel, oil finished and fully guaranteed.
4-Z-6939. Price. 60c

HORSESHOERS' PRITCHEL.

4-Z-6941. Made of octagon tool steel, 3/8-inch in diameter, oil finished. 38c

GENUINE HELLER BROS. FARRIERS' HAMMERS.

4-Z-6901. Heller Bros. Genuine Driving Hammer.

Made from the highest quality steel, fully warranted. Weighs, 12, 14 or 16 oz. State weight wanted. \$1.25

MACHINISTS' BALL PEIN HAMMERS.

4-Z-7019. Made of the highest grade cast steel, half polished, complete with Handles. Handles not included in weight.
Wt., lbs. 1 1 1/2 1 3/4 2
Each \$0.98 \$1.05 \$1.13 \$1.22 \$1.29

RIVETING HAMMERS.

4-Z-7013. Polished cast steel. Complete with handles. Handles are not included in weight.
Weight, ounces. 7 9 12 18
Each \$0.92 \$0.95 \$0.99 \$1.02

BLACKSMITHS' SLEDGES.

4-Z-7021. Solid cast steel polished faces, fully guaranteed. Prices do not include handles.
Wt., lbs. 6 8 10 12 14 18
Each \$0.83 \$1.10 \$1.33 \$1.65 \$1.92 \$2.48

GENUINE HELLER BROS. PATTERN DRIVING HAMMER.

4-Z-6903. Genuine Heller Bros. Pattern Driving Hammer. Guaranteed to be the best manufactured. Weighs, 14 and 16 ozs. Price. \$1.35

ADZE EYE FARRIERS' HAMMER.

4-Z-6905. Cast steel full polish. Complete with handle. Weight about 14 ozs. \$1.35

CLINCH TONGS.

4-Z-6907. Made of the finest tool steel. Used for turning the clinch instead of using a hammer. Especially desirable for colts or nervous horses. \$2.39

"OUR PRIDE" BALL BEARING HOOF SHEARS.

Has frictionless ball bearing joints, interchangeable knives. Drop forged from tool steel, making the tool practically indestructible as the knives can be readily replaced. Handles can be grasped with one hand when open. Both knives are sharp, making a shear cut insuring a smooth job. Adjustable to take up wear.
4-Z-6911. 11 inches. \$4.25
Extra Blades and Bolts for "Our Pride" Hoof Shears.
4-Z-6915. 11 ins. Per set. 98c

PERFECTION HORSE RASPS.

Made of high grade, carefully tempered crucible steel. These rasps cut fast and give excellent service. Each rasp fully guaranteed.
4-Z-6917. In. 12 14 16
Each 30c 45c 60c

PERFECTION SLIM HORSE RASPS.

Preferred by the horseshoer. Being narrow, they are more easily handled and will cut fast.
4-Z-6919. Length, in. 16 18
Price, each. 52c 65c

EASY BOLT CLIPPERS

4-Z-7027. Indispensable in every blacksmith and machine shop. Required in constant use for cutting bolts, rods, etc. Jaws are made of the best steel, properly tempered and can be adjusted to take up the wear of the joints and cutting edges. Fitted with rubber bumpers between handles to avoid any jar. Guaranteed to give the utmost satisfaction.
Size No. For Cutting Bolts Each
0 Up to 3/8 inch \$3.35
1 Up to 1/2 inch 4.50
2 Up to 3/4 inch 6.30
3 Up to 7/8 inch 8.10

HORSESHOERS' TURNING SLEDGES.

4-Z-7023. Solid cast steel, polished faces. Prices do not include handles.
Wt., lbs. 6 8 10
Each \$1.20 \$1.64 \$2.04

DROP FORGED GAD TONGS.

Made of best quality drop forged steel, oil finished.
4-Z-6947. Length, 18 in. 70c

BLACKSMITHS' PINCHERS.

Blacksmiths' Horseshoeing Pinchers. Made of solid forged steel polished jaws, fully warranted.
4-Z-6949. Length, 12 inches. 75c
Length, 14 inches. 79c

HORSESHOERS' HOOF NIPPER.

Made of the very best grade of tool steel, carefully tempered, finely finished and fully warranted.
4-Z-6955. Length, 12 inches. 90c
Length, 14 inches. 97c

GENUINE HELLER BROS. HOOF PARERS.

Made of the highest grade tool steel, full polished. Guaranteed to be the best on the market.
4-Z-6959. Length, 12 inches. \$1.95
Length, 14 inches. 2.35

COLD CHISELS.

4-Z-6977. Made of high grade octagon tool steel, properly tempered. Size is size of steel bar from which chisel is made.
Inches 1/2 5/8 3/4 1
Each 13c 18c 24c 50c

HORSESHOERS' BUFFER.

4 - Z - 6969. Steel, oil finished. For cutting off or driving nails out of hoofs. 75c

ROUND HAND PUNCHES.

4-Z-6979. Made of high grade octagon tool steel. Length, 10 inches.
Size of Point. Size of Shank. Price.
1/4 3/4 30c
3/8 1 32c
1/2 1 40c

GENUINE HELLER BROS. FARRIERS' PINCHERS.

Made of the highest grade steel carefully tempered, finely finished.
4-Z-6951. Length, inches. 14 16
Prices \$1.95 \$2.45

CLEAN CLIP ROOF AND NAIL NIPPER.

4-Z-6953. Drop forged of alloy steel. Web construction of handle gives stiffness, which insures easy cutting. 14 inches long. Weight, 26 ounces. Price \$2.00

EXTRA HIGH GRADE FARRIERS' CUTTING NIPPERS.

4-Z-6957. The best cutting nipper manufactured. Made of the best quality steel, finely finished, and guaranteed fully in every particular.
Length, 12 inch. \$2.15
Length, 14 inch. 2.60

GENUINE HELLER BROS. CUTTING NIPPERS.

4-Z-6961. Made of the finest grade crucible steel, fully warranted.
Length, 12 inch. \$1.95
Length, 14 inch. 2.35

PERFECTION INTER-CHANGEABLE FARRIERS' KNIFE.

For the Horseshoer, Veterinarian and all horsemen. Blades made of the best cast steel, properly tempered and can be instantly changed.
4-Z-6971. Knife comp. \$1.50
4-Z-6973. Handles only.28
4-Z-6975. Blades, each.40

BLACKSMITHS' HAND HAMMERS

4-Z-7015. We guarantee this hammer to be made of the very best quality steel, polished and complete with handles. Handles not included in weight.
Weight, pounds. 2 2 1/2 3
Price, each. \$1.25 \$1.35 \$1.45

FLOW OR ENGINEERS' HAMMER.

4-Z-7017. Made of the very best quality of steel, highly polished, complete with handles. Handle not included in weight.
Weight, ounces. 18 24 32 36
Each \$1.09 \$1.18 \$1.25 \$1.35

FARRIERS' EMERY STONE.

4-Z-7025. Made of solid Emery with steel rods running through entire length. One-half of stone having fine grit, the other medium. Length, 10 inch. Each. 25c

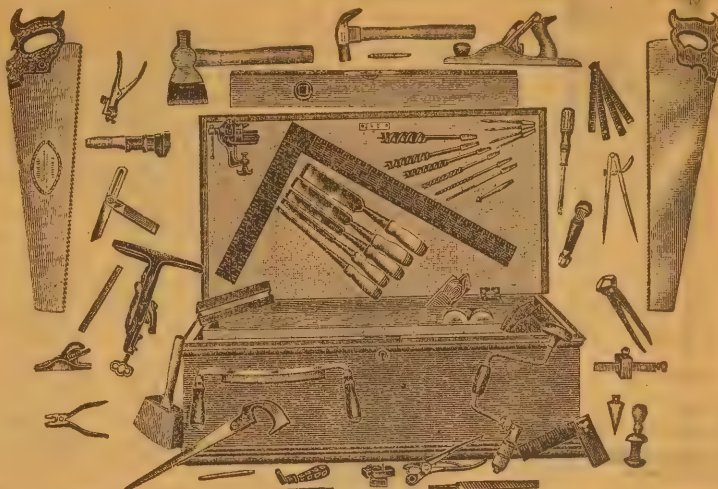
TRIUMPH TOOL SET

\$45.00

Each item represents the very best of their respective kinds. Every tool is selected from our regular stock and is fully guaranteed and adapted to the use of the skilled mechanic. Our price on this set is very much lower than if you bought these tools one at a time and the assortment is perfect. The Tool Chest is of Hardwood and is strongly made and nicely finished, fitted with sliding tray, handles and a secure lock.

Our Triumph Tool Set consists of the following tools:

- 1 Premier Extra High Grade Hand Saw, length, 26 inches.
- 1 Favorite Rip Saw, length, 26 inches.
- 1 Compass Saw, 12-inch, spring steel blade.
- 1 Iron Block Plane, length, 5½ inches.
- 1 Adjustable Iron Jack Plane, length, 15 inches.
- 1 Morrell Pattern Saw Set.
- 1 Japanned Iron Saw Vise, Length of jaws, 9½ inches.
- 1 Slim Taper File, length, 5 inches.
- 1 Flat Mill File, length, 8 inches.
- 1 Malleable Iron File and Tool Holder.
- 1 Carpenters' Steel Square, No. 7, with Essex board measure, Length of body, 24 inches; 16-inch tongue. Both sides marked in 8ths, 4ths and 1 inch.
- 1 Oil Stone, length 8 inches, mounted in hardwood case.
- 1 Pair Carpenters' Pincers, length, 8 inches. Claw on one handle, screwdriver on other.
- 1 Knurled Nail Set, tempered at both ends.
- 1 Spring Tube Punch for punching holes in leather.
- 1 Marking Gauge.
- 1 Wing Divider, polished steel, length, 8 inches.
- 1 Tri-Square.
- 1 Adjustable Plumb and Level, Polished cherry finish, arched top plates, two brass-tipped side views, length, 23 inches.
- 1 Zig Zag Folding Rule, length, 5 feet.
- 1 Carpenters' Pencil.
- 1 Sliding T Bevel, rosewood handle, brass tipped, 8-inch blade.
- 5 Premier Socket Firmer Chisels. Leather tipped handles, one each size ¼, ½, ¾, 1 and 1½ inches.
- 1 Ratchet Brace, nickel plated, polished hardwood head and handle, 10-inch sweep.
- 1 Hollow Handle Tool Set, polished cocobola handle, with 10 hand forged finely tempered tools.
- 1 Premier Drawing Knife, length of cut 10 inches.
- 1 Monkey Wrench, length 8 inches.
- 1 Cold Chisel, perfectly tempered, ½-inch cut.
- 6 Jennings' Pattern Auger Bits, high grade. One each size, ¼, ½, ¾, 1, 1½ and 2 inches.
- 1 Combination Side Cutting Plier, length 6 inches. End of one handle can be used as screwdriver; the other is pointed and can be used as a reamer.
- 4 German Pattern Gimlet Bits, extra-quality. One each size, 1-16, ¼, 5-32, and 3-16.



- 1 Combination Anvil and Vise, 1½-inch jaws.
- 1 Premier Shingling Hatchet, 3-⅞-inch cut.
- 1 Forged Steel Nail Hammer, size No. 1½.
- 1 Chalk Line Reel and Awl.
- 1 Plumb Bob, nickel plated.

- 3 Hanks Braided Chalk Line.
- 6 Cakes Carpenters' Chalk.
- 1 Snail Head Counter Sink, for wood.
- 1 Mallet, hickory head, size 6½x2½x3¼ inches, with handle.
- 100 Assorted Tubular Rivets.
- 12 Sheets Sandpaper, assorted.

4-Z-4603.

Triumph Tool Set.
Complete with chest.

\$45.00

Excelsior Tool Set

\$29.00



The Tool Chest is Made of Hard Wood and is Very Substantial. It is fitted with a sliding tray and a secure lock, and is sufficiently large to hold other tools that you may wish to add from time to time.

Our Excelsior Tool Set consists of the following tools:

- 1 Chicago Special Hand Saw, 24 inches long.
- 1 Chicago Special Rip Saw, 26 inches long.
- 1 Iron Block Plane, length, 5½ in.
- 1 Adjustable Wood Bottom Jack Plane, length, 15 inches.
- 1 Ratchet Brace, 10-inch sweep, Nickel-Plated.
- 1 2-foot Four-fold Rule.
- 1 Sliding T Bevel, rosewood handle, brass-tipped, 8 inch blade.
- 3 German Pattern Gimlet Bits, one each size, 1-16, ¼ and 3-16-inch.
- 1 Oil Stone, length, 6 inches, mounted in hardwood case.
- 4 Extension Lip Auger Bits, one each size, ¼, ½, ¾ and 1 inch.
- 1 High-Grade Shingling Hatchet, width of bit, 3¾ inches.
- 1 Premier Drawing Knife, length of cut 10 inches.
- 1 Screw Driver Bit.
- 1 Carpenters' Steel Square, No. 7, with Essex board measure; 24-inch body, 16-inch tongue. Marked on both sides.
- 1 Pair Combination Pliers, nickel-plated, length 5 inches.
- 1 Monkey Wrench, length, 10 inches.
- 1 Slim Taper File, length, 5 inches.
- 1 Mill File, length 8 inches.
- 1 Iron File and Tool Holder.
- 1 Wrought Steel Nail Hammer.
- 1 Oval Head Marking Gauge.
- 3 Socket Firmer Chisels, leather-tipped handles, one each size, ¼, ½ and 1 inch.
- 1 Knurled Nail Set.
- 1 Champion Pattern Screw Driver, 4-inch steel blade.
- 1 Plumb and Level, polished cherry, length, 23 inches.
- 1 Carpenters' Pencil.
- 1 Rose Head Countersink Bit.
- 1 Snail Head Countersink Bit.
- 1 Square Reamer Bit.

4-Z-4701.

Excelsior Tool Set.
Complete with Chest.

\$29.00

"Our Gem" Tool Set

\$9.95

Specially Selected for Household or Farm Use. Consists of 19 first-class tools for which you have daily requirement. Each tool is fully warranted, thoroughly practical, and will do the work for which it is designed.



"Our Gem" Tool Set consists of the following tools:

- 1 24-inch Crucible Steel Hand Saw.
- 1 Steel Nail Hammer.
- 1 Bit Brace, 8-inch sweep.
- 3 Auger Bits, cast steel, double spur, one each size, ¾, 1, 1½ inch.
- 4 Gimlet Bits, double cut, assorted sizes.
- 1½-inch Leather-tipped Socket Firmer Chisel.
- 1 4-inch Screw Driver, Champion pattern.
- 1 7-inch Iron Block Plane.
- 1 2-foot 4-fold Boxwood Rule.
- 1 Shingling Hatchet.
- 1 Combination Anvil and Vise, 1½-inch jaws.
- 1 8-inch Monkey Wrench.
- 1 6-inch Steel Tri-Square.
- 1 4-inch Taper File with Handle.

4-Z-4601.

"Our Gem" Tool Set.
Complete

\$9.95



HARDWARE SNAPS!



Cuts all right hand threads except No. 4-Z-7332.

Catalog Number	Manufactur. No.	Cuts inch	No. of threads to inch	No. of taps in set	No. of dies in set	Price per set
4-Z-7301	55	1/4 to 1/2	18-24 and 32	4	3 sets	\$2.80
4-Z-7303	53	1/4 to 1/2	16-20-24 and 32	4	4 sets	3.00
4-Z-7305	53 A	1/4 to 1/2	18-20-24 and 32	4	4 sets	3.10
4-Z-7307	41	1/4 to 1/2	16-20 and 26	6	3 sets	3.70
4-Z-7309	41 C	1/4 to 1/2	12-14 and 18	6	3 sets	3.70
4-Z-7311	41 D	1/4 to 1/2	12-16 and 20	6	3 sets	3.75
4-Z-7313	37	1/4 to 1/2	14-18 and 22	6	3 sets	4.75
4-Z-7315	37 A	1/4 to 1/2	12-14 and 16	6	3 sets	4.80
4-Z-7317	37 C	1/4 to 1/2	11-12 and 16	6	3 sets	4.85
4-Z-7319	34 C	1/4 to 1/2	10-11 and 12	3	3 sets	5.00
4-Z-7321	34 B	1/4 to 1/2	12-14 and 16	3	3 sets	5.05
4-Z-7323	34 A	1/4 to 1/2	10-12 and 14	3	3 sets	5.10
4-Z-7325	32 A	1/4 to 1/2	10-11-12 and 14	4	4 sets	5.60
4-Z-7327	32 B	1/4 to 1/2	10-12-14 and 16	4	4 sets	5.65
4-Z-7329	23	1 to 1 1/2	9-10 and 14	3	3 sets	5.75
4-Z-7331	23 A	1 to 1 1/2	8-10 and 12	3	3 sets	5.75
4-Z-7332	42 A	1/2 to 1	(Right hand 12 and 18 Left hand 12	6	3 sets	3.95



BLACKSMITHS' STOCKS AND DIES.

With Stocks for single die. Cuts right hand threads only.

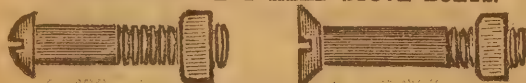
Catalog Number	Mfr. No.	Cuts inch	No. of threads to inch	No. of taps in set	No. of dies in set	Price per set
4-Z-7337	51 A	1/4 to 1/2	12-14 and 16	3	3 sets	\$4.45
4-Z-7339	51 B	1/4 to 1/2	12-14-16 and 18	4	4 sets	5.00
4-Z-7341	60	1/4 to 1/2	10-12-14 and 18	4	4 sets	7.25
4-Z-7343	27	1/4 to 1/2	10-12 and 16	6	3 sets	7.30
4-Z-7345	27 B	1/4 to 1/2	10-11-12-14 and 16	5	5 sets	8.40
4-Z-7347	27 C	1/4 to 1/2	10-11-12-14-16 and 18	6	6 sets	9.50
4-Z-7349	27 D	1/4 to 1/2	10-11-12-14-16-18 and 20	7	7 sets	10.65
4-Z-7351	27 A	1/4 to 1/2	10-11 and 12	6	3 sets	7.35
4-Z-7353	19 B	1 to 1 1/2	8-9-10 and 11	4	4 sets	10.00
4-Z-7355	19 C	1 to 1 1/2	8-9-10-11 and 12	5	5 sets	11.75

WOOD SCREWS.

Flat head bright wood screws, cold forged, are stronger, hold better and are inserted easier than other wood screws. Orders for less than a gross will be charged at the dozen price.

4-Z-4029	4-Z-4031	4-Z-4033	4-Z-4035
Length 1/4 inch	Length 3/8 inch	Length 1/2 inch	Length 3/4 inch
No. Gross Doz.	No. Gross Doz.	No. Gross Doz.	No. Gross Doz.
1 23c 3c	1 23c 3c	2 23c 3c	2 23c 3c
2 23c 3c	2 23c 3c	3 23c 3c	3 23c 3c
3 23c 3c	3 23c 3c	4 24c 3c	5 25c 3c
	4 23c 3c	5 25c 3c	6 27c 3c
		6 26c 3c	7 29c 3c
4-Z-4037	4-Z-4039	4-Z-4041	4-Z-4043
Length 1/2 inch	Length 5/8 inch	Length 1 inch	Length 1 1/4 inch
No. Gross Doz.	No. Gross Doz.	No. Gross Doz.	No. Gross Doz.
4 25c 4c	5 28c 4c	5 29c 4c	7 36c 5c
5 27c 4c	6 29c 4c	6 30c 4c	8 37c 5c
6 28c 4c	7 31c 4c	7 31c 4c	9 40c 5c
7 29c 4c	8 32c 4c	8 34c 4c	10 42c 5c
8 33c 4c	9 34c 4c	9 36c 4c	12 50c 6c
9 35c 4c	10 36c 4c	10 38c 4c	14 61c 6c
10 36c 4c	12 44c 4c	12 43c 4c	16 71c 6c
4-Z-4045	4-Z-4047	4-Z-4049	4-Z-4051
Length 1 1/2 inch	Length 2 inch	Length 2 1/2 inch	Length 3 inch
No. Gross Doz.	No. Gross Doz.	No. Gross Doz.	No. Gross Doz.
8 42c 5c	10 \$0.57 6c	12 \$0.75 9c	14 \$1.13 12c
9 44c 5c	12 .64 7c	14 .86 10c	16 1.36 14c
10 45c 5c	14 .79 8c	16 1.18 12c	18 1.78 16c
12 53c 5c	16 1.00 12c	18 1.52 15c	
14 64c 6c	18 1.36 14c		
16 91c 10c			

ROUND AND FLAT HEAD STOVE BOLTS.



3-16 INCH DIAMETER	1/4 INCH DIAMETER	5-16 INCH DIAMETER
Length, inch.....	Length, inch.....	Length, inch.....
Price per 100.....	Price per 100.....	Price per 100.....
1/2 27c 27c 27c 29c 29c 32c 35c 37c 39c 42c 48c	1/2 38c 38c 38c 40c 42c 45c 48c 50c 52c 58c 64c	1/2 56c 58c 60c 62c 66c 69c 74c 80c 86c

1-4 INCH DIAMETER BOLTS

Length, in. 1 1/4 1 1/2 2 2 1/2 3 3 1/2 4 4 1/2 5 5 1/2 6 6 1/2 7	Per 100. \$1.00 \$1.00 \$1.06 \$1.12 \$1.18 \$1.24 \$1.30 \$1.36 \$1.42 \$1.48 \$1.54 \$1.60 \$1.66 \$1.72 \$1.78 \$1.85
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5-16 INCH DIAMETER BOLTS

Length, in. 1 1/4 1 1/2 2 2 1/2 3 3 1/2 4 4 1/2 5 5 1/2 6 6 1/2 7	Per 100. \$1.20 \$1.20 \$1.26 \$1.34 \$1.40 \$1.50 \$1.56 \$1.62 \$1.68 \$1.74 \$1.80 \$1.86 \$1.92 \$2.00
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3-8 INCH DIAMETER BOLTS

Length, inch.....	1 1/4 1 1/2 2 2 1/2 3 3 1/2 4	Per 100.....	\$1.44 \$1.44 \$1.93 \$1.62 \$1.73 \$1.82 \$1.92
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Length, inch.....	1 1/4 1 1/2 2 2 1/2 3 3 1/2 4	Per 100.....	\$2.27 \$2.37 \$2.48 \$2.57 \$2.70 \$2.80 \$3.00
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1-2 INCH DIAMETER BOLTS

Length, inch.....	1 1/2 2 2 1/2 3 3 1/2 4 4 1/2 5 5 1/2	Per 100.....	\$2.43 \$2.60 \$2.68 \$2.95 \$3.12 \$3.30 \$3.48 \$3.65 \$3.73
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Length, inch.....	6 6 1/2 7 8 9 10 11 12	Per 100.....	\$4.00 \$4.18 \$4.35 \$4.70 \$5.05 \$5.40 \$5.78 \$6.10
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CARRIAGE BOLTS.

4-Z-7353. These have oval heads, square shoulders, perfect thread with forged nuts. Will sell 50 bolts at one-half 100 price.



1-4 inch diameter. 100 bolts in a package. (Always state size bolt wanted.)

Length, inch.....	1 1/4 1 1/2 2 2 1/2 3 3 1/2 4	Per 100.....	68c 68c 75c 81c 88c 95c \$1.02
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Length, inch.....	4 1/2 5 5 1/2 6 6 1/2 7 8	Per 100.....	\$1.08 \$1.15 \$1.21 \$1.29 \$1.43 \$1.50 \$1.65
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5-16 Inch Diameter. 50 Bolts in a Package. (Be sure to state length wanted.)

Length, inch.....	1 1/4 1 1/2 2 2 1/2 3 3 1/2 4	Per 100.....	95c 95c \$1.02 \$1.10 \$1.18 \$1.26 \$1.35
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Length, inch.....	4 1/2 5 5 1/2 6 6 1/2 7 8	Per 100.....	\$1.43 \$1.50 \$1.59 \$1.67 \$1.86 \$1.95 \$2.10
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3-8 Inch Diameter. 50 Bolts in a Package. (Be sure to state length wanted.)

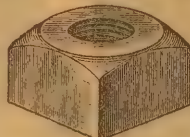
Length, inch.....	1 1/4 1 1/2 2 2 1/2 3 3 1/2 4	Per 100.....	\$1.29 \$1.29 \$1.40 \$1.50 \$1.60 \$1.70 \$1.80
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Length, inch.....	4 1/2 5 5 1/2 6 6 1/2 7 8	Per 100.....	\$1.92 \$2.04 \$2.15 \$2.25 \$2.50 \$2.60 \$2.85
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1-2 Inch Diameter. 50 Bolts in a Package. (Be sure to state length wanted.)

Length, inch.....	2 1/2 3 3 1/2 4 4 1/2 5	Per 100.....	\$2.33 \$2.54 \$2.70 \$2.91 \$3.14 \$3.30
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Length, inch.....	5 1/2 6 6 1/2 7 8	Per 100.....	\$3.53 \$3.70 \$3.93 \$4.11 \$4.30
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BLANK SQUARE NUTS.

4-Z-7361

Bolt, Inches	No. in lbs.	Price Blank Per lb.
1/4	74	17c
5/16	39	15c
3/8	21	12c
7/16	13	12c
1/2	12	11c
9/16	7	10c
5/8	6	10c
3/4	3	10c
7/8	2	9c
1	2	9c

THREADED SQUARE NUTS

4-Z-7363

Bolt, Inches	No. in lbs.	Price Threaded per lb.
1/4	74	20c
5/16	39	18c
3/8	21	14c
7/16	13	14c
1/2	12	13c
9/16	7	13c
5/8	6	12c
3/4	3	11c
7/8	2	10c
1	1	10c



WROUGHT IRON WASHERS.

4-Z-7359. These washers are made to easily fit the size or bolt given.

Bolt, ins.	No. in lb.	Per lb.
3/16	400	14c
1/4	139	12c
5/16	113	11c
3/8	68	9c
1/2	26	7c
5/8	13	7c
3/4	10	7c
7/8	9	7c
1	6	7c

CARPET TACKS.

Cut Tacks.

4-Z-4023. Medium Heads, Sharp Point Blued Iron Cut Carpet Tacks.

Size.	Length Inches.	Price per doz. Papers.
2 ounces	1/4	11c
4 ounces	7/16	14c
6 ounces	1/2	17c
8 ounces	9/16	20c
10 ounces	5/8	26c
12 ounces	11/16	31c

These Bargains Offer Big Economy!



Mixed Bolts

50 Pounds

\$3²⁵

A wonderful bargain in mixed bolts of all sizes and descriptions, such as machine, carriage, stove and plow bolts in all diameters, up to $\frac{7}{8}$ inch and 8 inches in length. No farm, factory or shop should be without this assortment. Stop and realize the time and money you can save by having 50 or 100 pounds of these mixed bolts on hand.

No. 4-Z-4081. 50 pounds..... **\$3.25**
No. 4-Z-4082. 100 pounds..... **\$6.25**

MIXED RIVETS



98c
20 Lbs.

Brand new mixed rivets, consisting of wagon makers', tinnerns', cornice plow, round and flat heads. Ranging in size from $\frac{1}{2}$ in. to $4\frac{1}{2}$ in. in length. 4-Z-135—Per 20-lb. package.....98c

MIXED TACKS



53c
10 Lbs.

A special assortment of tacks, consisting of carpet, bill posters and upholsterers' trimmers' tacks, put up in 10-lb. pkg. An assortment to meet the needs of every household. 4-Z-9900—10-pound package.....53c

Mixed Wood Screws

*You
Need Them
Every Day!*



10 Pound Box
60c

25 Pound Box
\$1²⁵

You will save more money on this handy assortment of wood screws than the low price we are asking during this sale. The assortment contains all bright new screws including round and flat heads from smallest sizes. All the screws constantly needed about the farm and home—always the right screw when you need it most. An excellent assortment for every purpose.

4-Z-8042 10-lb. box **60c**
25-lb. box **\$1.25**

20 Assorted Coil Springs



Here is another assortment, a wonderful bargain containing 20 assorted coil springs made of the best tempered steel. They can be used for almost anything, for your binder, mowers, and other implements, for screen doors; in fact, wherever a coil spring is required. This assortment consists of 20 assorted expansion and compression springs ranging in diameter from $\frac{1}{4}$ to $\frac{1}{2}$. Weight about 1 $\frac{1}{2}$ lbs. **60c**

4-Z-8046. COMPLETE ASSORTMENT.....



TESTED CABLE LOG CHAINS

Made of the best grade tested cable chain, fitted with hooks and swivels. Length 14 feet with grab hook on one end, large round hook on the other end, swivel in center. Size given is diameter of iron from which the links are made.

4-Z-7147. Tested Steel Log Chains.
Size, inches..... $\frac{3}{4}$ 5/16 $\frac{3}{8}$ $\frac{1}{2}$ 7/8
Weight, lbs. 11 17 23 41 72
Price\$2.15 \$2.85 \$3.35 \$5.60 \$10.00

Wrought Iron Chain Repair Links

4-Z-7034. Used to replace broken links. Made full size of regular chain iron.

Size, inches..... $\frac{3}{8}$ $\frac{1}{2}$
Price per dozen......60 8c

Malleable Repair Links

4-Z-7036. Can be applied without tools. These links combine simplicity and strength.

For Chain, inch..... $\frac{3}{8}$ $\frac{1}{2}$
Size, inch..... 5 5
Per dozen......65c 68c

Round Chain Hooks

4-Z-7045. Forged from the highest grade chain steel.

For chain, inches...5/16 $\frac{3}{8}$ $\frac{1}{2}$
Each25c 30c 50c

Grab Chain Hooks

4-Z-7047. Carefully forged from the highest grade chain steel.

For Chain, inch.....5/16 $\frac{3}{8}$ $\frac{1}{2}$
Each25c 30c 50c

Cobbler Outfit Complete

\$1⁹⁵

A Necessity in Every Home

Lot No. 4-Z-200. Reversible iron stand; men's, boys', women's, and child's lasts; hammer, knife, sewing awls, haws, needles, rivets, heel plates, leather and rubber cement, clamp, punch, soldering copper, solder, resin, tin, thread and wax; bored; shipping weight

10 lbs. Price..... **\$1.95**



Tested Cable Coil Chain

4-Z-7031. Short, straight links.

Made of high grade iron of great toughness and guaranteed full size.



Guaranteed to be strictly first class in every particular.

Size, inch.....3/16 $\frac{1}{4}$ 5/16 $\frac{3}{8}$ 7/16 $\frac{1}{2}$ $\frac{5}{8}$ $\frac{3}{4}$
Approx. Wt. per ft. lbs..... $\frac{1}{4}$ $\frac{1}{2}$ 1 $\frac{1}{2}$ 2 3 5 6
Per Foot..... 9c 12c 18c 21c 24c 34c 55c 66c

Utility Tool Set

\$1⁷⁵

Handy Tools for All Work



4-Z-5963. Set consists of: 11 tools specially selected, forged from high grade tool steel properly tempered. Polished cocobola handle, improved nickel plated chuck. Each tool is nicely finished and guaranteed to give entire satisfaction. **\$1.75**

MALLEABLE PIPE STOCKS AND SOLID STEEL DIES

In the manufacture of the dies it has been our aim to furnish a die of unusual cutting qualities. To do this it has been necessary to use a higher grade of steel than has heretofore been employed in the manufacture of pipe dies. We will guarantee that every die has a perfect clearance and will cut a clean thread. When cutting threads use plenty of oil. Lard oil is recommended for this purpose.



\$6.00

4-Z-2801. Set No. 0.	
Pipe size of dies, regular set, inches $\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$ $\frac{3}{4}$ 1	
Dimensions of dies, inches.....	2x2x $\frac{3}{4}$
Price per set, complete with dies.....	\$5.00

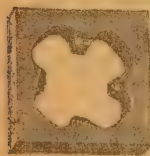
4-Z-2802. Set No. 1.	
Pipe size of dies, regular set, inches $\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$ $\frac{3}{4}$ 1	
Dimension of dies, inches.....	2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x $\frac{3}{4}$
Price per set, complete with dies.....	\$8.00

4-Z-2803. Set No. 1$\frac{1}{2}$.	
Pipe size of dies, regular set, inches $\frac{1}{4}$ $\frac{3}{8}$ $\frac{1}{2}$ $\frac{3}{4}$ 1 $1\frac{1}{2}$	
Dimension of dies, inches.....	3x3x $\frac{3}{4}$
Price per set, complete with dies.....	\$7.50

4-Z-2804. Set No. 1$\frac{3}{4}$.	
Pipe size of dies, regular set, inches.....	1 $\frac{1}{4}$ $1\frac{1}{4}$ $1\frac{3}{4}$
Dimension of dies, inches.....	3x3x $\frac{3}{4}$
Price per set, complete with dies.....	\$7.50

4-Z-2805. Set No. 2.	
Pipe size of dies, regular set, inches.....	1 $\frac{1}{4}$ $1\frac{1}{2}$ 2
Dimension of dies, inches.....	4x4x $\frac{3}{4}$
Price per set, complete with dies.....	\$11.00

4-Z-2806. Set No. 3.	
Pipe size of dies, regular set, inches.....	2 $\frac{1}{4}$ 3
Dimension of dies, inches.....	5x5x1 $\frac{1}{2}$
Price per set, complete with dies.....	\$27.50



EXTRA DIES AND GUIDES.
These can be furnished either right or left hand thread. In ordering be sure and state which. Unless otherwise specified dies with right hand threads will be shipped.

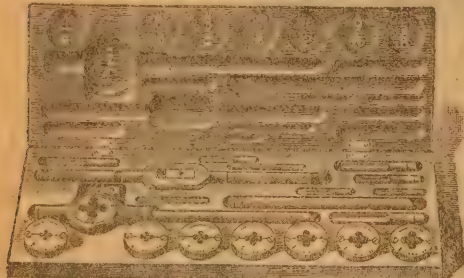
Dimension of Dies, inches	Pipe Size of Dies	Price of Dies	Price of Guides
2x2 x $\frac{1}{2}$	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1	\$0.97	\$0.21
2 $\frac{1}{2}$ x2 $\frac{1}{2}$ x $\frac{3}{4}$	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$	1.10	.28
3x3 x $\frac{3}{4}$	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$	1.39	.42
4x4 x $\frac{3}{4}$	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2	1.76	.53
5x5 x 1	$\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, 1 , $1\frac{1}{4}$, $1\frac{1}{2}$, $1\frac{3}{4}$, 2 (right hand only)	6.20	1.40



CHAMPION EASY SCREW PLATES

\$14.60

U. S. Standard Thread



No. 4-Z-627. Cuts 5 sizes as follows: $\frac{1}{4}$ -20, $\frac{1}{2}$ -16, $\frac{3}{4}$ -13, $\frac{1}{2}$ -11, $\frac{3}{4}$ -10, U. S. standard threads. Length of stock, 16 in., weight 7 $\frac{1}{2}$ lbs., price set.....\$14.60
No. 4-Z-628. Cuts 6 sizes as follows: $\frac{1}{4}$ -20, 5/16-18, $\frac{3}{8}$ -16, 7/16-14, $\frac{1}{2}$ -13, $\frac{3}{4}$ -11, U. S. standard threads. Length of stock 16 in., weight 8 lbs. Price per set.....\$15.70
No. 4-Z-631. Cuts 9 sizes as follows: $\frac{1}{4}$ -20, 5/16-18, $\frac{3}{8}$ -16, 7/16-14, $\frac{1}{2}$ -13, $\frac{3}{4}$ -11, $\frac{1}{2}$ -9, 1 in.-8 U. S. standard threads. Has two stocks one 16 in. and one 29 in. long. Weight 19 lbs. Price per set.....\$26.75

AUTO AND REPAIR SHOP SCREW PLATE COMBINATION
No. 4-Z-633. Consists of 10 dies and taps cutting both standard U. S. threads and S. A. E. auto standard threads. U. S. standard threads 5 sizes: $\frac{1}{4}$ -20, 5/16-18, $\frac{3}{8}$ -16, 7/16-14, $\frac{1}{2}$ -13. 5 sizes S. A. E.: $\frac{1}{4}$ -28, 5/16-24, $\frac{3}{8}$ -24, 7/16-20, $\frac{1}{2}$ -20. One 15 $\frac{1}{2}$ in. stock and adjustable tap wrench. Hardwood box with taps. Weight 10 $\frac{1}{2}$ lbs., complete.....\$18.75
No. 4-Z-634. Combination consists of 18 dies cutting $\frac{1}{4}$ -20, 5/16-18, $\frac{3}{8}$ -16, 7/16-14, $\frac{1}{2}$ -13, 9/16-12, $\frac{3}{4}$ -11, $\frac{1}{2}$ -10, U. S. standard and $\frac{1}{4}$ -28, 5/16-24, $\frac{3}{8}$ -24, 7/16-20, $\frac{1}{2}$ -20, 9/16-18, $\frac{3}{4}$ -18, $\frac{1}{2}$ -16, S. A. E. Price per set.....\$35.90

ARMSTRONG PATTERN ADJUSTABLE STOCK AND DIES FOR THREADING PIPE



The dies are standard in size and are easily adjusted to the variations and size of pipe. The taper at the entrance of the first few threads is greater than the standard taper, thus forcing six of the teeth of the die to do the work of the cutting instead of two or three as in the ordinary die. This causes them to start on the pipe very easily, even though it is burred considerably. Each set is finely finished and packed in a hardwood box.



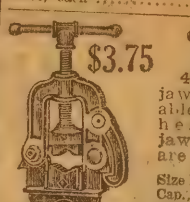
4-Z-2824. Set No. 2$\frac{1}{2}$. Dies in this set are double-ended. Sizes 1 $\frac{1}{2}$ in. and 1 $\frac{3}{4}$ in. Weight of set 20 lbs. Price, complete.....\$9.55 Price of double end dies, cutting 1 $\frac{1}{2}$ in. 1 $\frac{3}{4}$ in. 5.00	
4-Z-2825. Set No. 3. Size of dies, inches, 1 $\frac{1}{2}$, 1 $\frac{3}{4}$, 2. Weight per set, 35 lbs. Price complete.....\$12.35 Extra pipe dies from 1 $\frac{1}{2}$ to 2 $\frac{1}{2}$ each size.....3.15	
4-Z-2826. Set No. 6. Dies in this set are double-ended. Sizes 3 $\frac{1}{2}$ x3 $\frac{1}{2}$. Weight per set, 73 lbs. Price complete.....\$30.50	
4-Z-2827. Set No. 7 contains four double-ended dies. 2 $\frac{1}{2}$ x3, and 3 $\frac{1}{2}$ x4. Weight 110 lbs. Price complete.....\$37.55	

SMITH'S COMBINATION PIPE VISES.

6-Z-2839. Can be used as a swivel or stationary bottom. Pipe jaws are reversible. Vise can be used either for pipe or as a parallel machinist's vise.



Size No. 1.....	1	2	3
Weight, lbs.....	45	70	105
Capacity, inches.....	$\frac{1}{2}$ to 2	$\frac{3}{4}$ to 3	$\frac{1}{2}$ to 4
Width of jaw, inches.....	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{2}$
Price, each.....	\$12.80	\$17.60	\$22.40



OPEN HINGE MALLEABLE PIPE VISES.

4-Z-2841. Made with steel jaws, which are interchangeable. Vise is self locking heavily constructed. The jaws and every part of vise are fully guaranteed.

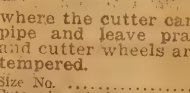
Size No. 1.....	2	3	4
Cap., in. $\frac{1}{2}$ to 2 $\frac{1}{2}$	$\frac{1}{2}$ to 3 $\frac{1}{2}$	$\frac{1}{2}$ to 4	$\frac{1}{2}$ to 5
Price, each \$3.75.....	\$5.60	\$9.40	



BARNES' THREE WHEEL PIPE CUTTERS

4-Z-2843. Made of malleable iron. Steel pins and cutting wheels are made of highest grade crucible steel, oil tempered. This style of cutter is especially suited to use in that class of work where it is impossible to revolve cutter entirely around pipe.

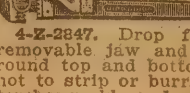
Size No. 1.....	2	3	4
Cuts pipe, inches.....	$\frac{1}{2}$ to 1	$\frac{1}{2}$ to 2	$\frac{1}{2}$ to 3
Price, each.....	\$2.60	\$3.30	\$5.50
Extra wheels.....	.14	.17	.22



SAUNDERS' PATTERN PIPE CUTTER

4-Z-2845. Is suitable for work where the cutter can be revolved around the pipe and leave practically no burr. Pins and cutter wheels are made of crucible steel, oil tempered.

Size No. 1.....	2	3	4
Cuts pipe, inches.....	$\frac{1}{2}$ to 1	1 to 2	2 to 3
Price, each.....	\$2.00	\$3.00	\$7.30
Extra wheels.....	.16	.21	.40



TRIMO PIPE WRENCHES.

4-Z-2847. Drop forged from bar steel, removable jaw and nut. Are made with round top and bottom, threads guaranteed not to strip or burr. All the parts are interchangeable and can be renewed at small expense.

Lgth	Takes Pipe	Price	Lgth	Takes Pipe	Price
In.	In.	Each	In.	In.	Each
6 in. $\frac{1}{4}$ to $\frac{3}{8}$	$\frac{1}{4}$ to $\frac{3}{8}$	\$1.05	18 in. $\frac{1}{4}$ to 2.....	$\frac{1}{4}$ to 2	\$2.60
8 in. $\frac{1}{4}$ to 1.....	$\frac{1}{4}$ to 1	1.18	24 in. $\frac{1}{4}$ to 2 $\frac{1}{2}$	$\frac{1}{4}$ to 2 $\frac{1}{2}$	3.10
10 in. $\frac{1}{4}$ to 1.....	$\frac{1}{4}$ to 1	1.32	36 in. $\frac{1}{4}$ to 3 $\frac{1}{2}$	$\frac{1}{4}$ to 3 $\frac{1}{2}$	7.80
14 in. $\frac{1}{4}$ to 1 $\frac{1}{2}$	$\frac{1}{4}$ to 1 $\frac{1}{2}$	1.83	48 in. 1 to 5.....	1 to 5	10.50

HARRIS REVERSIBLE CHAIN WRENCH.

4-Z-2508. WITH CABLE CHAIN. Steel Hand

Lgth, in. 20.....	27	37	44 $\frac{1}{2}$	50 $\frac{1}{2}$	64 $\frac{1}{2}$
Cap., in. $\frac{1}{4}$ to 1 $\frac{1}{2}$	$\frac{1}{4}$ to 2 $\frac{1}{2}$	$\frac{1}{4}$ to 4	1 to 6	1 $\frac{1}{2}$ to 8	2 to 12
Price, ea. \$1.32.....	\$1.95	\$2.65	\$3.32	\$3.90	\$6.84

STILSON PIPE WRENCHES.

Lgth.	Takes Pipe	Each
In.	In.	
8 in. $\frac{1}{4}$ to $\frac{1}{2}$	$\frac{1}{4}$ to $\frac{1}{2}$	\$0.95
10 in. $\frac{1}{4}$ to $\frac{3}{8}$	$\frac{1}{4}$ to $\frac{3}{8}$	1.05
14 in. $\frac{1}{4}$ to 1.....	$\frac{1}{4}$ to 1	1.17
18 in. $\frac{1}{4}$ to 1 $\frac{1}{2}$	$\frac{1}{4}$ to 1 $\frac{1}{2}$	1.65
24 in. $\frac{1}{4}$ to 2.....	$\frac{1}{4}$ to 2	2.35
36 in. $\frac{1}{4}$ to 2 $\frac{1}{2}$	$\frac{1}{4}$ to 2 $\frac{1}{2}$	3.45

PIPE TAPS AND REAMERS

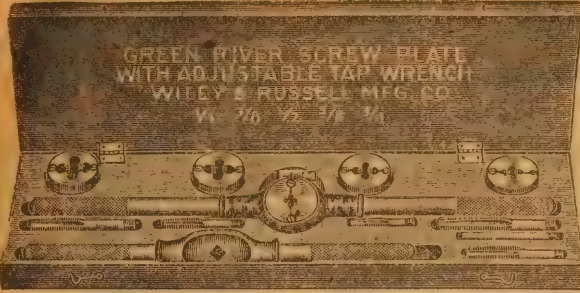
Made of high grade tool steel, each tool fully guaranteed.

4-Z-2831. Pipe-Tap.	
$\frac{1}{2}$ in.	\$0.45
$\frac{3}{8}$ in. ....	.54
$\frac{1}{4}$ in. ....	.62
$\frac{1}{2}$ in. ....	.90
$\frac{3}{4}$ in.	1.26
4-Z-2832. Pipe Reamer.	
1 in.	\$1.98
$\frac{1}{2}$ in.	3.10
$\frac{1}{4}$ in.	4.10
2 in.	6.20

\$22⁷⁵

SCREW PLATES

\$22⁷⁵



WILEY & RUSSELL'S GREEN RIVER SCREW PLATES. The dies are adjustable for work and make bolts and nuts fit tightly or loosely, as may be required. It does its work with a single cut. Sets are furnished $\frac{1}{8}$ inch over size "V" thread, which fits all standard carriage and machine bolts.

4-Z-7101. No. 1124; 5 sizes, $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ " taper taps; dies and guides 2 and $\frac{1}{2}$ " outside diameter; stock, 22" long; adjustable tap wrench, 15" long. Weight, 11 lbs. Complete in hardwood box. Price..... **\$22.75**

4-Z-7103. No. 1104; 7 sizes, $\frac{1}{4}$ ", $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{1}{2}$ " taper taps; dies and guides, 2 and $\frac{1}{2}$ " outside diameter; stock, 22" long; adjustable tap wrench, 15" long. Weight, 16 lbs. Complete in hardwood box. Price..... **\$27.50**

4-Z-7105. No. 1112; 9 sizes, $\frac{1}{4}$ ", $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ " taper taps; dies and guides, 2 and $\frac{1}{2}$ " outside diameter; stock, 29" long, 2 adjustable tap wrenches, 11 $\frac{1}{2}$ " and 19 $\frac{1}{2}$ " long. Weight, 32 lbs. Complete in hardwood box. Price..... **\$42.00**

\$7⁰⁰ LITTLE GIANT SPLIT DIE \$7⁰⁰ SCREW PLATES

Round adjustable dies, $\frac{1}{2}$ inch diameter. Each set complete with adjustable tap wrench, neatly packed in a velvet lined case. Small figures indicate number of threads. Dies cut exact sizes.

4-Z-7111. 5 Taps, 5 dies, Stock and Adjustable Tap Wrench.

Cutting 4³⁰, 6³⁰, 8³⁰, 10³⁰, 12³⁰.

Price..... **\$7.00**

4-Z-7113. 5 Taps, 5 Dies, Stock and Adjustable Tap Wrench.

Cutting 4⁴⁰, 6⁴⁰, 8⁴⁰, 10⁴⁰, 12⁴⁰. Price..... **\$8.00**

4-Z-7115. 6 Taps, 6 Dies, Stock and Adjustable Tap Wrench.

Cutting 4⁴⁰, 6⁴⁰, 8⁴⁰, 10⁴⁰, 12⁴⁰, 14⁴⁰. Price..... **\$8.25**

4-Z-7116. 6 Taps, 6 Dies, Stock and Adjustable Tap Wrench.

Cutting 4⁴⁰, 6⁴⁰, 8⁴⁰, 10⁴⁰, 12⁴⁰, 14⁴⁰. Price..... **\$9.00**

4-Z-7117. 7 Taps, 7 Dies, Stock and Adjustable Tap Wrench.

Cutting 4⁴⁰, 6⁴⁰, 8⁴⁰, 10⁴⁰, 12⁴⁰, 14⁴⁰, 16⁴⁰. Price..... **\$10.00**

4-Z-7119. 10 Taps, 10 Dies, Stock and Adjustable Tap Wrench.

Cutting 2⁵⁰, 3⁵⁰, 4⁵⁰, 5⁵⁰, 6⁵⁰, 8⁵⁰, 10⁵⁰, 12⁵⁰, 14⁵⁰, 16⁵⁰. Price..... **\$12.50**



MACHINISTS' HAND TAPS

Size up to $\frac{1}{4}$ inch. Shanks are full size of threads. Taps $\frac{3}{8}$ and larger, shanks same size as bottom of thread. All taps are exact size to standard "V" thread.

4-Z-7133.

TAPER TAPS



4-Z-7135.

PLUG TAPS



4-Z-7137.

BOTTOM TAPS



Diameter Inch	Number of Threads	Price Each	Price Set of Three	Diameter Inch	Number of Threads	Price Each	Price Set of Three
$\frac{1}{8}$	24	\$0.17	\$0.50	$\frac{1}{4}$	11	\$0.54	\$1.62
$\frac{1}{8}$	20	.23	.69	$\frac{1}{4}$	11	.63	1.89
$\frac{1}{8}$	18	.30	.90	$\frac{1}{4}$	10	.73	2.16
$\frac{1}{8}$	16	.33	.99	$\frac{1}{4}$	10	.74	2.52
$\frac{1}{8}$	14	.36	1.08	$\frac{1}{4}$	9	.96	2.88
$\frac{1}{8}$	12	.42	1.26	$\frac{1}{4}$	9	1.07	3.24
$\frac{1}{8}$	12	.47	1.35	$\frac{1}{4}$	8	1.23	3.63

TAPS, DIES AND HOLDERS

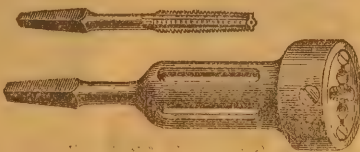
Either Tap or Die will work in an ordinary Bit Brace, used largely for tapping Nuts and Threading Bolts.

Making perfect threads at a single cut.

Size, inches	Price	Price	Price	Price
4-Z-7139. Die, tap and holder, complete	\$2.85	\$2.85	\$2.85	\$3.50
4-Z-7141. Die only	1.50	1.50	1.50	1.95
4-Z-7143. Tap only	.75	.75	.80	1.05
4-Z-7145. Holders, separately, any size, each				.80c

Unless otherwise ordered, we will send these taps and dies 1/32-inch over size V thread.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.



\$34⁵⁰ WILEY & RUSSELL LIGHTNING FULL MOUNTED SCREW PLATES

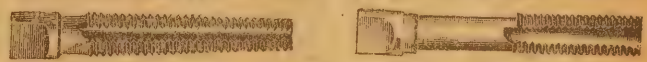
A stock for each die, always ready for immediate use. No waiting until one mechanic is through so that another mechanic can use the stock. Saves time and money. Each set fitted with an improved adjustable tap wrench. Furnished $\frac{1}{8}$ inch over size "V" thread, which fits all standard carriage and machine bolts.



4-Z-7107. Includes 7 stocks and complete dies and collets. Cutting sizes: $\frac{1}{4}$ ", $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ " and $\frac{3}{4}$ inch. Complete with tap wrench and taps in hardwood box. Weight 23 lbs. Price.... **\$34.50**

4-Z-7109. Includes 9 stocks and complete dies and collets. Cutting sizes: $\frac{1}{4}$ ", $\frac{1}{2}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ ", $\frac{5}{8}$ ", $\frac{3}{4}$ " and 1 inch. Complete with tap wrench and taps in hardwood box. Weight 43 lbs. Price.... **\$54.00**

BLACKSMITHS' PLUG AND TAPER TAPS



4-Z-7121. Right Hand Taper Tap. **4-Z-7125.** Right Hand Plug Tap.

Made of best grade tool steel. Each tap fully warranted. Always mention number, size and number of threads when ordering.

Size Inch	Hand	No. of Threads to the Inch	Price Each	Size Inch	Hand	No. of Threads to the Inch	Price Each
$\frac{1}{8}$	Right	30 or 32	\$0.22	$\frac{1}{2}$	Right	12-14-16 or 18	\$0.46
$\frac{1}{8}$	Right	24 or 26	.24	$\frac{1}{2}$	Right	10-12 or 14	.50
$\frac{1}{4}$	Right	18-20-22-24 or 26	.30	$\frac{3}{4}$	Right	10-11-12 or 14	.55
$\frac{1}{4}$	Right	16-18-20 or 22	.37	$\frac{3}{4}$	Right	8-10 or 12	.72
$\frac{1}{2}$	Right	12-14-16 or 18	.43	$\frac{3}{4}$	Right	8-9 or 10	.83
$\frac{1}{2}$	Right	12-14-16 or 18	.43				

ADJUSTABLE TAP AND REAMER WRENCH

4-Z-7129. Strong and durable. Nicely finished. Guaranteed to hold taps and reamers tight.

Length, inches	11	16	21
Holds Taps	$\frac{1}{4}$ to $\frac{1}{2}$	$\frac{1}{2}$ to $\frac{3}{4}$	$\frac{3}{4}$ to 1
Price	\$3.50	\$4.00	\$5.00

REAMERS FOR WOOD OR IRON

4-Z-7131. Made of high grade tool steel, properly tempered. Used to enlarge holes where punching and drilling is not quite perfect. To be used in bit brace.

Size, inches	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$
Price	.56c	.65c	.75c	.84c	.97c

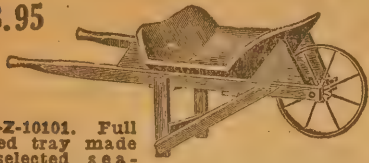
Ask for Our New Furniture Book, Now Ready

WHEEL BARROWS

Strong and durable and will give excellent service. The wheels are made with improved hubs, the spokes are held securely to the tire by countersunk head and cannot become loose. The frames and trays are heavy and properly braced and of the best construction known in the manufacture of wheel barrows. Guaranteed to give satisfactory service.

STANDARD RAILROAD OR DIET BARROW

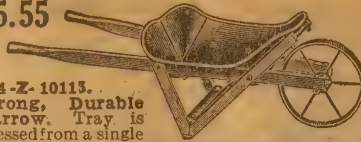
\$3.95



4-Z-10101. Full sized tray made of selected seasoned hardwood, strongly braced and well bolted. Has 16-inch improved steel wheel with malleable hub, 1 1/2 inch on tread. A strong, durable barrow which will give excellent satisfaction. Shipped knocked down. Weight about 45 lbs. **\$3.95**

STEEL TRAY BARROW

\$5.55



4-Z-10113. Strong, Durable Barrow. Tray is pressed from a single sheet of 18-gauge steel without seam or lap, with edge turned over a 3/4-inch rod, which stiffens tray and gives it a round finished edge. Tray is mounted on triangular blocks which elevate the front and make it possible to carry a larger load without spilling. Has 16-inch improved steel wheel with malleable hub, 1 1/2 inch on tread. Shipped knocked down. Weight about 47 pounds. **\$5.55**

\$8.55 PAN TRAY BARROW

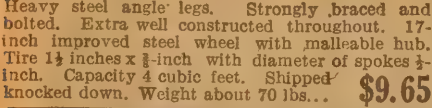


4-Z-10127. A Great Favorite with the Contractors. Tray is pressed from a single sheet of 16-gauge steel, wired and beaded on edge with 3/4-inch steel rod. The strongest and smoothest Pan Tray Barrow made. Size of tray 33 x 32 inches. Depth at wheel 11-inch. Depth at handle 7 1/2 inches. Capacity 4 cubic feet. Strongly braced and bolted. 16-inch improved steel wheel with malleable hub, 1 1/2 inch on tread. Shipped knocked down. Weight about 60 pounds. **\$8.55**

MORTAR AND CONCRETE BARROW

\$9.65

4-Z-10103. For Mortar, Concrete, Coal, Stone, Cinders, Ashes, Etc. Heavy steel tray 24-inch wide, 36-inch long. Depth at wheel 14-inch. Depth at handles 8 inches. Hardwood handles 1 1/2 x 2 1/2 x 60 inches. Heavy steel angle legs. Strongly braced and bolted. Extra well constructed throughout. 17-inch improved steel wheel with malleable hub. Tire 1 1/2 inches x 3/4-inch with diameter of spokes 3/4-inch. Capacity 4 cubic feet. Shipped knocked down. Weight about 70 lbs. **\$9.65**



GARDEN BARROW

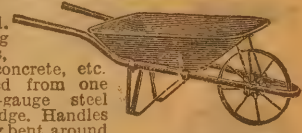
\$5.60



4-Z-10117. Made of Selected Hardwood. Strongly constructed with steel braces, painted and varnished in a superior manner. Removable sides. Bed, length 28 inches. Width at handles 20 inches, depth 12 inches. 20-inch improved steel wheel with malleable hubs. Tire 1 1/2 inches wide. Weight about 55 pounds. **\$5.60**

TUBULAR STEEL BARROW

Made entirely of steel.



For handling coal, ashes, dirt, mortar, concrete, etc. Trays stamped from one piece of 16-gauge steel with beaded edge. Handles made of tubing bent around in front of wheel which permits forward dumping. Improved steel wheels with malleable hubs. **4-Z-10129.** Length on top 32-inch. Width on top 28-inch. Depth at wheel 7-inch. Depth at handles 5 inches. Capacity 3 cubic ft. Weight about 75 pounds. **\$9.85**
4-Z-10131. Tubular Steel Wheel Barrow. Length on top 37-inch, width on top 29 1/2 inches. Depth at wheel 9 inch. Depth at handles 6 1/2 inches. Capacity 4 cubic feet. Weight about 80 pounds. **\$10.95**

PREMIER HIGH GRADE ROAD SCRAPERS

Premier Scrapers are the best and guaranteed, are heavy and adapted to the use of the contractor and others who know the necessity of good equipment.

Bowls are made of No. 11 gauge 40-point carbon steel. While being made from a single sheet of steel they are not made as a solid bowl. The reason for riveting the sides and back together,

is that the scraper is made deeper without stretching the steel at the rear end, where used as a fulcrum to throw the point out of the ground when filled, at which point it receives the most wear—under any condition maintaining the original thickness of the steel—is, we claim, a big point in favor of this scraper. The handle sockets placed on the side prevents wear when the scraper is being dragged back.

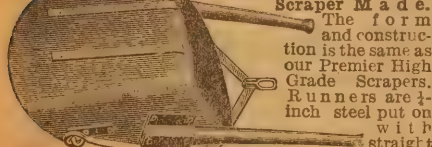
Runners are put on the bottom with long tapered rivets, the taper extending the entire thickness of runners, which insures a head as long as the runners last. The balls or No. 1 Scraper are made of 1 1/2 x 3/4-inch steel; those on Nos. 2 and 3 Scrapers are of 1 1/2 x 1/2-inch steel. Heavy swivel link on each ball. Handle sockets never need renewing. Smooth bottom scrapers are made without runners. Broad flat plate scrapers are made with a heavy, flat steel plate, riveted to and reinforces the bottom. Double runner scrapers have two steel runners, size 1 1/2 x 3/4-inches, attached to bottom with countersunk rivets as above described.

Capacities: No. 1 holds 7 cubic feet and weighs about 100 pounds; No. 2 holds 5 cubic feet and weighs 90 pounds; No. 3 holds 3 cubic feet and weighs 80 pounds. Shipped From Factory, Central Ohio

	No. 3	No. 2	No. 1
4-Z-10105. Smooth Bottom Scraper	\$8.05	\$8.40	\$ 8.75
4-Z-10107. Double Runner Scraper	8.74	9.10	9.45
4-Z-10109. Broad Flat Plate Scraper	9.05	9.80	10.15

OHIO ROAD SCRAPER

The Best Low Priced Scraper Made.



The form and construction is the same as our Premier High Grade Scrapers. Runners are 3/4-inch steel put on with straight rivets. The ball, malleable swivel, also draw hooks and body, are of somewhat lighter material than used in our Premier Scrapers. The capacities are the same. The No. 1 weighs about 80 pounds; No. 2 about 70 pounds and No. 3 about 68 pounds. Especially adapted for those who have only occasional use for scraper. Shipped Cent. Ohio

	No. 3	No. 2	No. 1
4-Z-10111. Smooth Bottom	\$7.45	\$7.80	\$8.15
4-Z-10113. Double Runner	7.95	8.35	8.70

DOAN DITCH SCRAPER

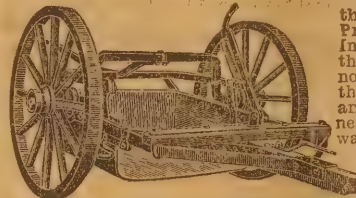
\$8.70



1 1/2 x 1/2 inches, to which is attached a heavy chain. Shipped from Factory, Central Ohio

4-Z-10125. Doan Scraper. Weight 83 pounds. **\$8.70**

PREMIER WHEEL ROAD SCRAPER



Strength and Simplicity are the Leading Features of the Premier Wheel Road Scraper. In the construction of this Scraper there is not a single part that cannot be duplicated at any blacksmiths; this feature is of the utmost importance to the contractor as any repairs necessary can be made at once. No waiting for special parts to come from the factory. The bowls are made from one piece of 7/8-inch 40 point heavy carbon steel. Axles are turned up in a

lathe in as careful and perfect manner as axles for the finest vehicles, and are superior to hammered axles which are finished roughly with a reamer. The same thing relates to the boxes in which the spindles are inserted. The sand bands are fastened with three set screws that are fitted to the inside end of the hub to keep the dirt from reaching the spindle. The idea of the three set screws is to equalize the pressure and prevent breakage, as is often the case when one screw is used, bringing the pressure on one spot. Wheels have Sarven Hubs.

Price does not include Automatic End Gates. These we can furnish at price quoted below. In event they are wanted, they must be specified; otherwise, the scraper is shipped without. Shipped From Cent. Ohio

4-Z-10119. Size No. 1.	Capacity 9 cubic feet, 36-inch wheel, weight about 500 pounds.	\$51.80
4-Z-10121. Size No. 2.	Capacity 13 cubic feet, 40-inch wheel, weight about 650 pounds.	\$70.00
4-Z-10123. Size No. 3.	Capacity 17 cubic feet, 45-inch wheel, weight about 825 pounds.	\$79.80

CHICAGO TONGUE SCRAPER



Used to cut or all ditches and handling earth. Body is made of selected hardwood. Tongue and cross bars of thoroughly seasoned oak heavily strapped, securely bolted and riveted. The draw bars are made of extra quality steel, 1 1/2 inches. Malleable iron shoes are used, which are superior to steel, being thicker and will last longer. Made with square holes for the shoulder of the bolt. When the nuts are tightened the bolt cannot turn. There is also a socket for the head of the bolt to rest in. Weight 135 pounds.

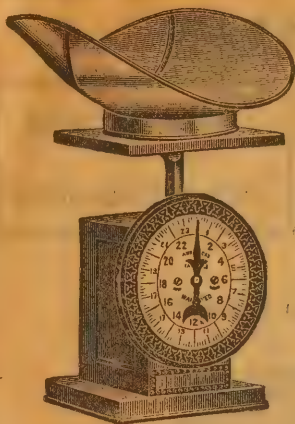
Shipped from Factory, Central Ohio.

4-Z-10133. 48-Inch Chicago Tongue Scraper. **\$9.95**

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

HOUSEHOLD SCALES

Thousands of keen, thrifty housewives have learned the advantage of weighing their purchases and now know the convenience of these handy household scales. Make your selection and include one with your order.



24 lb. Capacity Vertical \$2¹⁰ Dial

A strictly high grade scale for family use. Guaranteed to weigh accurately. The body is made of cold rolled steel, nicely nickel plated and enameled. Springs are made of high grade tempered steel. Equipped with tension screw for perfect regulating and balance. White enameled dial with graduations plainly marked. Capacity 24 pounds, by ounces. Shipping weight, 6 pounds.

4-Z-10035. Price with- \$2.10
but scoop.....
4-Z-10037. Price, with tin
scoop\$2.70

Family Scale \$2⁵⁰ Angle Dial



Capacity
24 lbs.

4-Z-10001. A well made, dependable scale of unusual value for general family use. Body made of cold rolled steel. Nicely enameled. White enameled dial, slants on angle of 45 degrees, can be easily read at a glance. Capacity 24 pounds, by ounces. Shipping weight, 5 pounds. Each..... \$2.50

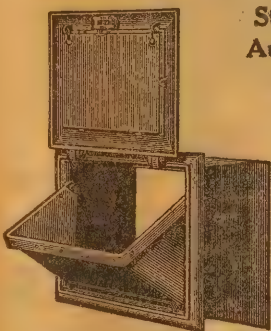


\$3⁹⁰ 60 lb. Capacity Double Platform Supports

This splendid scale embodies every desired feature of workmanship and material. Guaranteed to weigh accurately. The body is made of heavy cold rolled steel, handsomely enameled and finished. The graduations are plainly marked and easily read. The double platform support is a desirable feature; this distributes the weight evenly and assists the scale in maintaining accurate weight. The platform is 7 1/2 in. square. Capacity of scale, 60 lbs. by ounces. Shipping weight, 10 lbs.

4-Z-10017. Price, without scoop...\$3.90
4-Z-10019. Price, with heavy tin
scoop 5.25

Coal Chutes



Standard
Automatic
and
Plain

\$13⁸⁰
and up

Designed to be placed in a cellar wall same as any window. These chutes serve as a substantial protection to your building, appearing as a convenient opening for depositing coal, wood and other material into the basement. All modern buildings are equipped with chutes of this kind.

The body of chute is made of heavy steel; the door of strong gray cast iron. All parts are nicely painted before shipment. Hopper can be removed if desired. When the door closes, the hopper swings back into the chute and allows the door to close against the wall.

Size of Wall Opening

17-Z-152. Size 24 in. wide, 17 in. high and 13 in. deep with hopper.....\$16.20
17-Z-153. Size 33 in. wide, 22 in. high and 18 in. deep with hopper.....\$28.50
17-Z-154. Size 24 in. wide, 17 in. high and 13 in. deep without hopper.....\$13.80
17-Z-155. Size 33 in. wide, 22 in. high and 18 in. deep without hopper.....\$24.90

ASH PIT DOORS



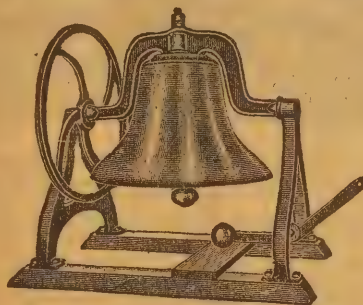
\$1⁸⁰
and up

17-Z-25. These ash pit doors are made of extra heavy cast iron, easily fitted and absolutely tight. Furnished in black enamel.

Number	Opening Size	Price
1	8x8	\$1.80
2	8x10	2.35
3	10x12	3.60
4	10x14	4.00
5	12x15	4.80

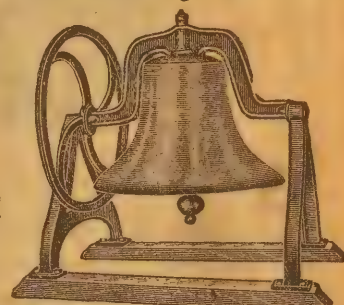
HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

School-Church and Factory Bells



\$16²⁵
and
up

These
bells offer a
great meas-
ure of pro-
tection in
case of fire
or danger.



Wood sills and iron rope wheels are furnished with 20 in. to 36 in. bells and sectional wood rope wheels with 38 in. to 48 in. bells. Made with best crystal composition. The tone and volume of sound is greater than can be produced by any other composition bell. Bells size 44 in. are mounted on special roller bearings to ring with ease and uniformity of stroke. Bells 24 in. and larger have adjustable springs so that the clapper strikes with sufficient force, then holding away so that the vibration and tone are uninterrupted. The prices below do not include tolling hammers. When tolling hammers are furnished there is an additional charge.

Extra for Tolling Hammer

20", 22", 24", 26".....	\$4.70
28", 30", 32", 34".....	5.15
36" and larger.....	6.00

4-Z-10205. Crystalloid School House and Factory Bells.

No. Diam. Inches	Approx. Wt. Lbs., Bell and Mountings	Price, F.O.B. Factory
20	165	\$16.25
22	205	20.25
24	250	24.75
26	350	35.20
28	450	46.90
30	570	56.75
32	630	61.50

4-Z-10207. Crystalloid Church Bells.

No. Diam. Inches	Approx. Wt. Lbs., Bell and Mountings	Price, F.O.B. Factory
24	260	\$24.75
26	365	35.20
28	465	46.90
30	570	56.75
32	640	61.50
34	765	73.70
36	950	90.80
38	1010	102.25
40	1300	124.00
44	1790	168.00
48	2280	215.00

Designed Especially For Farm Use



Styles 1-2-3

A bell is a necessity on a farm. For with it an alarm can be sounded and distinctly heard for a great distance. These bells are made of a crystal composition. They have a clear tone and are best bells for factory or farm manufactured.



Style 4

Thirty Days' Free Trial

4-Z-10209.

Should any bell we send you prove unsatisfactory after you have given it a careful test and trial for thirty days, send it back and we will return the full purchase price, together with any transportation charges you have paid.

Size No.....	1	2	3	4
Approximate Diameter.....	15	17	19	21
Approximate Weight.....	40	50	75	100
Price complete F. O. B. Chicago.....	\$4.25	\$5.35	\$8.00	\$10.40

Heating Plants? Get Our Low Money Saving Prices

PREMIER STEEL SCALES

STEEL FRAME PITLESS SCALES

For Stock and Wagons

Ball Bearing
And
Absolutely Accurate

Splendid Construction
—
10 Year Guarantee

Built on 5 Lever Plan

\$117⁰⁰

U. S. Standard 5 Ton Capacity



Premier Scales embody the best features known in scale construction and have many improvements over other pitless scales.

Every bearing rests in an independent, self adjusting seat, and cannot be thrown out of line. A scale to weigh correctly at all times must swing perfectly clear, and the nearer you come to preventing a bind the nearer perfect your scale will weigh.

Premier Scales are built on the five lever plan, recognized as the best construction by leading scale experts. There are two pipe levers, one at each end of the scale and two arm levers. The two arm levers carry the weight to Cross lever, and this lever takes the weight to beam.

The Cross lever rests in an independent stand on a small foundation and this lever is absolutely independent. All levers are stationary and the jar of a load going on the scale or the vibration of the platform will not move them a particle. This means a true bearing at all times and you can be assured correct weights. This cannot be said of scales where the levers swing with the platform and every vibration and jar of the platform directly affects the levers.

A good many Pitless Scales use a cross lever having the main bearing attached to the steel joist. Where this is the case every motion of the platform moves the cross lever, and this form of construction is a source of annoyance, for the motion of the platform tends to throw the lever from a true bearing, and as soon as any lever in a scale is off a true bearing the scales will weigh incorrectly.

THE BALL-BEARING feature is the crowning one of this scale. It is well known that a scale with ball bearings will wear much longer than one without, and it will remain sensitive and accurate long after the old style needs repairs. No matter how much the corner settles, within a reasonable amount, the ball bearings are bound to remain in the center of the cups, since it is impossible for them to rest on the sides of the cups. Therefore the platform will not bind if the corner settles, but the ball bearings will always roll to center, and stay there.



LATEST COMPOUND FULL CAPACITY BEAM
WITH TARE BAR AND
ROLLER BEARING POISE

INTERCHANGEABLE PARTS. All parts of our scale are made standard, and are interchangeable—an advantage not fully appreciated until something happens, and you are obliged to send your whole scale to a shop to have one part adjusted, as is the case with most other scales on the market. It is not so with the "PREMIER." We can ship you any part and you can put it in yourself and the scale will weigh perfectly. The construction throughout is so simple, and there are so few parts to get out of order. **PORTABILITY**—It is often necessary to move a scale, consequently we have paid particular attention to this feature.

THE BEAM. We use only one style beam. We believe it to be the most perfect yet devised—the latest compound full capacity beam, with tare-bar and roller bearing poise. It is made of iron, brass faced, with cast steel spring latch. 200 lbs. The tare bar is of solid brass, and has round sliding poises, up to 10,000 lbs. The small bar is graduated in 2½ lbs., up to 5 lbs., up to 2000 lbs. No loose weight to contend with. Your whole weighing outfit is right on the beam in front of you.

DEPTH OF FRAME. Note especially this feature, the frame, over all, is only eight inches high. This is a particularly strong point, as all pitless scales rest on top of ground; and the lower the frame, the easier it is to drive onto it with a loaded wagon.

ADVANTAGES. With a pitless scale you are saved the many annoying and expensive features of the Pit Scale—such as digging and walling the pit; the services of a carpenter to build the frame work; renewing broken and rotten timbers; removing platform to clear out the trash and dirt that constantly accumulates, etc.

OUR GUARANTEE for 10 years is made in compliance with laws governing weights and measures and will pass inspection anywhere. They meet all requirements of recently enacted laws in the various states. We guarantee that inspectors will approve them. You are thus assured of durable, accurate scales, with hardened steel bearings, tool steel pivots, platform easily movable and not binding on frame, besides many other improvements.

Capacity, 5 tons. Size of platform, 8 feet by 14 feet. Shipping weight about 1400 pounds. Shipped from factory in Illinois or Missouri.

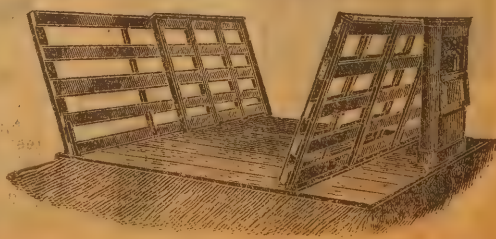
4-Z-9810. Each..... \$117.00

4-Z-9811. 10-ton capacity. Platform 8x22. Shipping weight 2600 pounds..... \$269.00

With these Irons a most substantial rack can be built upon any wagon-scale platform; and it is no more expensive than the old-style. Rack can be folded back, like shown in cut, requiring less than five minutes' time. As rack is balanced on platform, it does not affect the accuracy of weight. We furnish all the iron to build the rack, with full directions, and specifications for lumber required. We do not furnish any bolts or lumber. About 200 feet of lumber is required. Weight, 30 pounds.

4-Z-9812. (Irons only, for building rack, 8x14x5 feet.) Price..... \$6.50

Folding Stock-Rack Irons



HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

GUARANTEED CONSTRUCTION PREMIER PIT SCALES

Accurate Weight
Means
Real Saving

Brick Foundation Not Necessary

Guaranteed
To Be
Accurate

Strong Well Made Bean Box \$72⁰⁰
5 and 10 Ton Capacity



A Brick Pit is not necessary. A platform with ordinary boards for siding is cheaper and will answer the purpose.

THE principle of this Scale is absolutely correct. Each lever upon which the platform rests conveys the weight that is put on it to the beam, independently of the other levers. By referring to illustration you will note that the four principal levers on which the platform rests are hung between an iron stand at the outer end and a loose shackle at the center; each lever being perfectly free to move by itself, and the weight is transmitted to the beam through the fifth lever, which has no other function. The large illustration shows this scale just as you would set it in a pit. It shows the iron stand resting on the mud sills which may be of solid timber, or any 2-inch built-up material as shown. The floor or platform is 8 feet wide and 14 feet long. The Beam Rod goes up to beam from end of lever. Scale has five levers of the best quality of cast iron and is made heavy and strong.

It also has the valuable Ball Bearing feature. In fact, we manufactured and sold thousands of these scales before pitless scales were thought of, and while we now recommend the pitless scale wherever it can be used, there are some places and conditions where the pit scale is better adapted; for instance, where the scale must be set level with the surface, or where there is not room to build the approaches.

Our Brass Compound Beam with Roller Bearing Poise enables you to weigh quick and accurately, and you have no loose weights to bother with. Timber required for 5-ton scale. Any timbers that are more than two inches thick can be made by spiking two-inch stuff together. Bearing planks, two pieces 4x8—7½ ft. long. Joists, six pieces, 2x8—14 ft. long. Floor, fourteen pieces, 2x12—8 ft. long. Coping, sides two pieces, 6x6—15 ft. long. The coping must be mortised at the corners, and they should be square, the opening to be 8x14 ft. The levers do their own measuring—all that is necessary is to get the mud sill under the stand; it does not matter if scale is set square or diamond-shaped—it weighs just the same. No other scale made has this flexibility.

4-Z-9905. 5-ton capacity Premier Pit Scale. Platform, 8x14. Weight, 525 pounds. Shipped from Illinois or Missouri..... \$ 72.00
4-Z-9910. 10-ton capacity Premier Pit Scale. Platform, 8x22. Weight, 1000 pounds. Shipped from Illinois or Missouri..... 148.00
Timbers or planks for this scale are not included.

HIGH GRADE PLATFORM SCALES

ADJUSTED AND SEALED TO U.S. STANDARD WEIGHTS

PREMIER PORTABLE
WEIGHTLESS SCALES

\$26⁹⁵

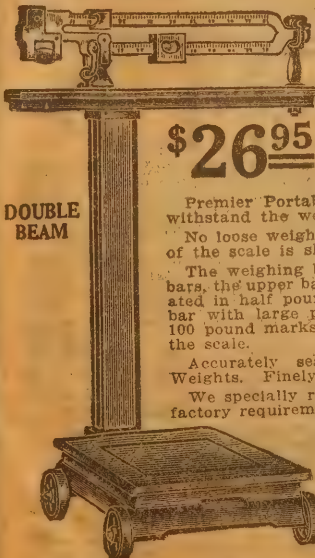
Accurate Balancing
Ball Easily Operated

Premier Portable Weightless Scales are built to withstand the wear and tear of heavy weighing. No loose weights to get lost, as the full capacity of the scale is shown on the brass beam.

The weighing beam is of brass, consisting of two bars, the upper bar with small sliding poise is graduated in half pound marks up to 100 pounds, lower bar with large poise is notched and graduated in 100 pound marks to the balance of the capacity of the scale.

Accurately sealed to United States Standard Weights. Finely finished and fully guaranteed.

We specially recommend this scale for store and factory requirements.



4-Z-9926. With Double Beam

Cap. Lbs.	Size of Platform, Inches	Shipping Weight	Price
600	16x22½	150	\$26.95
900	17x23	160	30.45
1000	18x25	170	33.60
1200	18x27	180	37.45

PREMIER SINGLE BEAM
PLATFORM SCALES \$22⁷⁵

Best Material and Workmanship

THE BEST Scale at a medium price that money will buy from any house.

Every Farmer should have a portable scale, as it will save cost many times during the year, especially at the price we offer it. We are able to quote this extremely low price because of the quantity we use. We know that when you see it you will agree with us as to its great value.

They are built with steel pivots, carefully hardened and finished. Platform rests on adjustable chilled bearings, which take all the wear off the steel pivots, and as pivots remain sharp, the scales are always quick and sensitive.

It is made of very best material and workmanship throughout, neatly finished, strong and accurate.

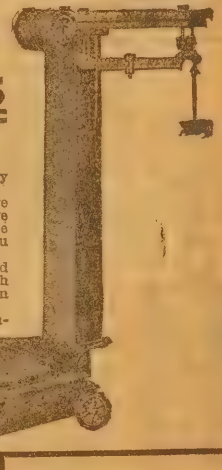
Solid brass weighing beam, graduated in ¼ pounds, with brass sliding poise.

Shipped promptly from warehouse stock near Chicago, and guarantee perfect satisfaction or refund your money.

Made in the following sizes:

4-Z-9922. With Single Beam

Capacity, Lbs.	Size of Platform, In.	Shipping Weight	Price
600	16x21	140	\$22.75
900	17x23	150	26.25
1000	18x25	160	28.70
1200	18x27	165	35.25



Premier Scales are carefully prepared for shipment so that they will arrive in perfect working order. They are shipped to you for quick service, direct from our factory in Illinois or Missouri.

HAY CARRIER TOOLS

\$730

DOUBLE SWIVEL HAY CARRIERS. With Improved Locking Device.



Has but two pieces, which makes it an absolutely positive lock. No springs or unnecessary parts to get out of order. Will work either way, by changing pulley from one end of the barn to the other, making it unnecessary to untie the ropes from other pulleys. This simple method is a big feature not generally found in other carriers.

4-Z-11301. Wood track double swivel Hay Carrier complete with stop and fork pulley. Price.....

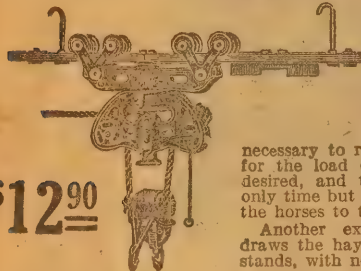
4-Z-11303. Steel track double swivel Hay Carrier complete with stop and fork pulley. Price.....



\$7.30

\$7.35

DOUBLE SWIVEL SLING HAY CARRIER.



\$12.90

Made of the best malleable iron, heavy and durable, simple in construction. The special feature of this swivel carrier is that often when the barn is empty it is not necessary to raise a load up to the track, for the load can be raised to any point desired, and tripped, thereby saving not only time but half the distance or more for the horses to travel.

Another excellent feature is that it draws the hay or grain direct as the load stands, with no twist in the rope.

4-Z-11305. Wood track swivel sling carrier. Price.....

SNATCH PULLEY BLOCK.

4-Z-11309. To shorten travel of horse without reducing the power. Horsetravel only half the distance hay is carried. Frame is made of malleable iron with iron sheave. For use with manila rope only. Price, each ...



IRON YOKE HAY FORK PULLEY.

4-Z-11311. With loose hollow pin, hard maple sheave, 6 inch. Price, each.....



DOUBLE ANGLE STEEL TRACK.

4-Z-11319. Made only in five and ten foot lengths. Furnished complete with couplings and bolts. Two end bumpers are furnished with track when 30 feet or more are ordered. Price, per foot.....



STEEL TRACK HANGING HOOKS.

4-Z-11321. For double steel angle track. Price, each.....

WOOD TRACK HANGING HOOKS.

4-Z-11323. 14 inches along the bend. Price each.....

FLOOR HOOKS.

4-Z-11325. Used to screw to floor to hold pulleys. Diameter, 1 inch. Price, each.....

JOINED HANGING HOOKS.

4-Z-11327. Used for hanging wood track to beams without using rafter brackets. Price, each.....

RAFTER BRACKETS.

4-Z-11329. For Hay carrier track. Price, each.....

EYE BOLTS.

4-Z-11331. For fastening Hay Carrier Cable to end of barn. Has long threads to take up slack. Price, each.....

HAY CARRIER ROPE

Good quality Manila Rope suitable for Hay Carrier purposes. We furnish this rope in connection with Hay Carrier Outfits as described in our catalog. The 3/4" is used for the trip and the 1/2" is generally used for the carrier, although in connection with our outfits, either the 3/4" or the 1/2" rope can be used.

Size, inches	2-Z-11617.	3/4	3/8	1/2	5/8	3/4
Price, per foot	3/4	1/2	2/3	3/4	1/2	4/5
Size, inches	2-Z-11617.	1	1 1/8	1 1/4	1 1/2	1 3/4
Price, per foot	6c	8c	9c	10c	15c	

SELF-LOCKING SLING PULLEY.

4-Z-11333. Can be used in connection with our Double Swivel Hay Carrier. The simplest and strongest sling pulley ever offered. It has no springs, and regardless of how large or how small the load of hay is in the wagon sling, it will lock at any place.

When the knob of the Sling Pulley enters the Hay Carrier the entire weight of hay is on this knob and throws the lock against the rope between the two pulleys and when the load is dumped and Hay Carrier is returned and strikes the stop block, the knob drops, the sling pulley is unlocked and is ready for another load. Price.....

SINGLE HARPOON HAY FORKS.



4-Z-11335. Regulation size, made of best materials. Price, each.....

DOUBLE HARPOON HAY FORKS.

4-Z-11337. Shorttime, Double Harpoon Hay Fork, 25 inch tine, 16 inches between points. Made of best quality material. Price, each.....

4-Z-11339. Long time, Double Harpoon Hay Fork, tines 30 inches long, 16 inches between points. Price, each.....

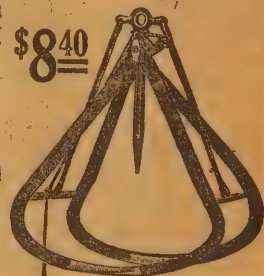
4-Z-11341. Double Harpoon Hay Fork, 34 inch tines, 22 inches between points. Designed for handling alfalfa and straw. Can be used, however, for handling any kind of hay. Price, each.....

HAY GRAPPLE FORKS.

The best and strongest Grapple Forks manufactured.

4-Z-11343. 4 tine Grapple Fork for regular work. Price, each.....

4-Z-11345. 6 tine Grapple Fork for short hay, loose straw. Price, each.....



STANDARD ADJUSTABLE WAGON SLINGS.



Made for an 18 foot wagon rack. They can be made shorter for any size wagon by drawing the ropes through the wood bars and tying another knot on each side of wood bars. There is a center trip on all slings and they are fitted with the best and simplest lock.

An outfit generally consists of one sling pulley and three wagon slings, so as to take off an entire load in three lots. The trip rope is of proper length, permitting the sling to be easily tripped. Sling pulleys or sling carriers must be used with wagon slings.

4-Z-11347. Length, 4 foot. Price, each.....

4-Z-11349. Length, 5 foot. Price, each.....

4-Z-11351. Length, 6 foot. Price, each.....

GALVANIZED HAY CARRIER CABLE.

2-Z-11353. 1/2 inch diameter, composed of 7 wires. Price, per foot.....

2-Z-11355. Clamps for cable Hay carriers. Price, each.....

2-Z-11357. Collars for cable Hay carriers. Price, each.....

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

MONEY SAVED BY BUYING CARRIERS HAY CARRIERS

**WEST
ICES!
EATEST
RENGTH.
EY SAVE
Y MONEY
D WORK**

PRICE You no doubt know better than anyone else, the advantages of a Hay Carrier, but do you know that here you have the greatest bargain ever offered in this class of high grade farm equipment? We have purchased over 10,000 of these outfits, at a price below cost of material; that is why we undersell the world.

ECONOMY Every part of these outfits, from the smallest bolt up, were selected to stand the hardest usage. The whole affair is designed for the purpose by a great barn designer, so that you can get the smoothest running and easiest to operate hay carrier outfit.

The carriers are extra heavy and have no springs to get out of adjustment. The track is a double steel angle, and is furnished in 10 ft. lengths; the rope is of best quality pure Manila. Each outfit named below is furnished complete for the size barn specified. To save delay we strongly advise ordering any of the assortments thus described. The hay rope furnished is $\frac{1}{4}$ inch in diameter. Compare our assortments with others, and you will find that we furnish a more complete outfit than any other on the market.

**BARGAINS
THAT YOU
CAN NOT
AFFORD
TO PASS.
DECIDE
NOW!**

STEEL TRACK OUTFITS COMPLETE

4-Z-11201. For 30 foot barn consisting of one double swivel hay-carrier, 30 feet of double steel track with couplings and 12 rafter brackets, 12 hanging hooks, 4 floor hooks, 1 double harpoon short time hay fork, 3 steel yoke knot passing pulleys, 100 feet of $\frac{1}{4}$ inch Manila hay rope, 40 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$33.24**

The outfits below include the same equipment as 4-W-11201, but in greater quantities for larger barns.

4-Z-11203. Complete outfit for 40 foot barn, including 110 ft. of $\frac{1}{4}$ inch Manila Hay rope, and 45 ft. of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$35.28**

4-Z-11205. Complete outfit for 50 foot barn, including 120 feet of $\frac{1}{4}$ inch Manila hay rope, 50 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$37.80**

4-Z-11207. Complete outfit for 60 foot barn, including 130 feet of $\frac{1}{4}$ inch Manila Hay rope, and 55 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$40.38**

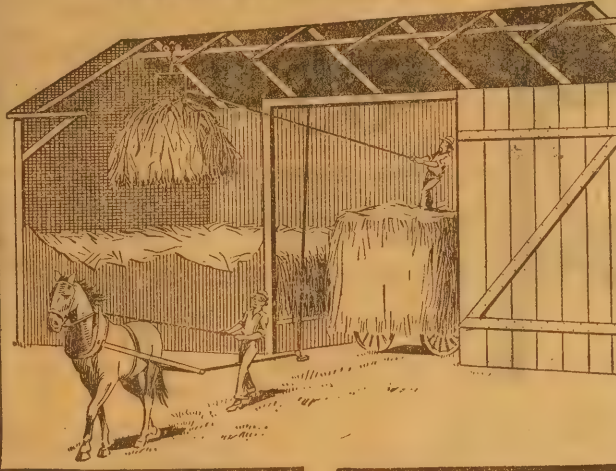
4-Z-11209. Complete outfit for 70 foot barn including 140 feet of $\frac{1}{4}$ inch Manila Hay rope, and 60 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$42.36**

4-Z-11211. Complete outfit for 80 foot barn, including 150 feet of $\frac{1}{4}$ inch Manila hay rope, and 65 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$45.42**

4-Z-11213. Complete outfit for 90 foot barn, including 160 feet of $\frac{1}{4}$ inch Manila hay rope, 70 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$46.92**

4-Z-11214. Outfit for 80 foot barn complete, including 170 feet $\frac{1}{4}$ inch Manila hay rope and 70 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$56.04**

STACK HAY CHEAPER NOW



4-Z-11215. Complete outfit for 100 foot barn, including 180 feet of $\frac{1}{4}$ inch Manila rope, and 75 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$67.90**

Remember, we furnish complete track, rafter-brackets, bolts and hanging hooks with each outfit.

If your barn is different or you don't think that any of our regular outfits are exactly suited to your needs, just write us what your special problems are. We will select you a complete outfit to suit your requirements. Our experts have spent years in this kind of work and understand every difficulty that can arise. Don't hesitate to call on us for plans and advice. We give them to you free. We want to help you get the right outfit, and assure you of absolute satisfaction.

WOOD TRACK OUTFITS COMPLETE

4-Z-11217. For 30 foot barn, consisting of one double swivel hay carrier, 12 rafter brackets, 12 hanging hooks, 4 floor hooks, 1 double harpoon short time hay fork, 3 steel yoke knot passing pulleys, 100 feet of $\frac{1}{4}$ inch Manila hay rope, 40 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$26.28**

4-Z-11219. For 35 foot barn, consisting of: 1 double swivel Hay Carrier, 14 rafter brackets, 14 hanging hooks, 4 floor hooks, 1 double harpoon short time Hay Fork, 3 steel yoke knot passing pulleys, 110 feet of $\frac{1}{4}$ inch Manila hay rope, 45 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$27.00**

4-Z-11221. For 40 foot barn, consisting of: 1 double swivel Hay Carrier, 16 rafter brackets, 16 hanging hooks, 4 floor hooks, 1 double harpoon short time Hay Fork, 3 steel yoke knot passing pulleys, 120 feet of $\frac{1}{4}$ inch Manila hay rope, 50 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$28.56**

WIRE CABLE BARN OUTFITS

4-Z-11233. Outfit for 30 foot barn, consisting of one reversible cable carrier, 30 feet of $\frac{1}{2}$ inch galvanized wire cable, two eye bolts, 2 cable clamps, 3 steel yoke knot passing pulleys, 4 floor hooks, 1 double harpoon short time hay fork, 100 feet of $\frac{1}{4}$ inch Manila hay rope, 40 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$27.90**

4-Z-11236. Complete outfit for 40 foot barn. Price..... **\$29.10**

Bear in mind that we furnish complete rope, cable, bolts, etc., for each outfit.

4-Z-11223. For 50 foot barn, consisting of: 1 double swivel Hay Carrier, 20 rafter brackets, 20 hanging hooks, 4 floor hooks, 1 double harpoon short time Hay Fork, 3 steel yoke knot passing pulleys, 140 feet of $\frac{1}{4}$ inch Manila hay rope, 55 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$30.84**

4-Z-11225. For 55 foot barn, consisting of: 1 double swivel Hay Carrier, 22 rafter brackets, 22 hanging hooks, 4 floor hooks, 3 steel yoke knot passing pulleys, 150 feet of $\frac{1}{4}$ inch Manila hay rope, 60 feet of $\frac{1}{4}$ inch Manila Trip rope. Price..... **\$32.16**

4-Z-11227. Complete outfit for 60 ft. barn..... **\$33.12**

4-Z-11229. Complete outfit for 80 ft. barn..... **\$37.68**



WIRE CABLE FIELD OUTFITS

4-Z-11241. For 50-foot field stacking outfits consisting of one reversible cable carrier, one double harpoon short time hay fork, 150 ft. of half-inch galvanized wire strand, 2 clamps for making loops around end stacks, 2 collars to prevent post working inward, 2 long bolts for the top of posts; 3 steel yoke knot passing pulleys; 140 feet of $\frac{3}{4}$ -inch Manila hay rope; 65 feet of $\frac{3}{4}$ -inch Manila Trip rope. Price complete..... **\$30.00**

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Harris Adjustable Fence Post Machine



Three Posts in One, Straight or Tapered, Long or Short Post, Plain or Corrugated Handled Like a Wheelbarrow

The Wheelbarrow Method Has Them All Beat

The "Harris" adjustable fence post machines will make posts in the same manner as the corrugated machine, but will do so with greater speed because of its convenience in handling. Strictly a one-man machine. The three posts in one is a very big feature. You can adjust this machine so as to make posts from 5 ft. to 7 1/2 ft. in length, increasing the size of the top from 2 1/2 in. to 4 in. and increasing the size of the bottom from 3 1/2 in. to 6 1/2 in. The slides are made of 1/2 inch steel plate, reinforced with angle iron. The handles and truck are of gray iron castings. The top (truck end) and bottom (handle end) are so arranged for adjustment that you can get any desired width and style of top. On this machine you can make a smooth post as well as the corrugated. For this purpose, the corrugated strip, which is placed in the machine loose, is removed. A special staple form is provided to make staples of the ordinary No. 9 wire. These staples are imbedded in the cement, during process of making. The fence is fastened to these wire staples imbedded in the cement. You will only require one piece of the corrugated iron with each mould, as this strip can be used for every post made.

Shipped from factory in Central Wisconsin.

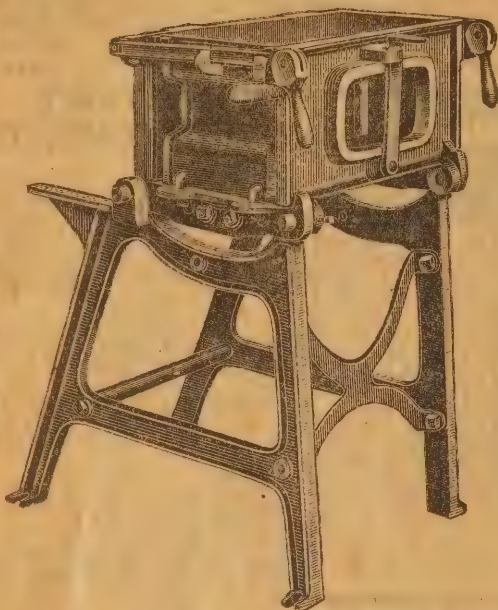


PRICES		
Cat. No.	Weight	Price
4-Z-119	137 lbs.	\$29.50



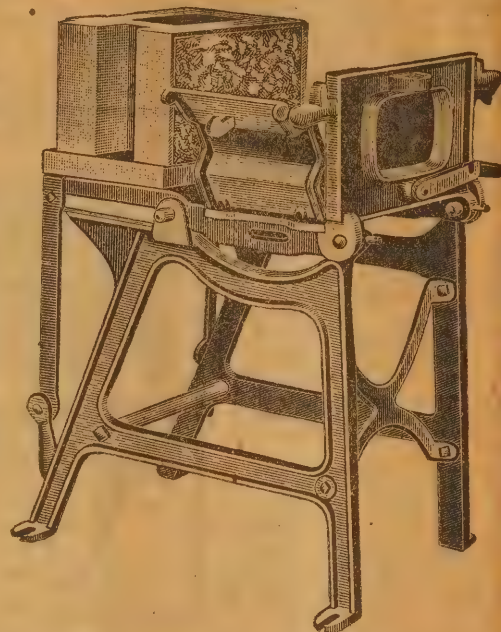
Harris' Cream Getter Cream Separators are "The World's Best"

Konkrete King Face Down Block Machine



\$65⁰⁰

Buys Complete Outfit for Making 8x8x16 Inch and Fractional Size Building Blocks.



The "Konkrete King" Block Machine makes blocks on the face down principle. In this way the blocks can be made with a cement face of a mixture of three to one or two to one, and the balance of the block made of a mixture of five to one. The face of the block is the part that is exposed to the weather and concrete with a large proportion of cement affords better resistance to frost and dampness. However, the entire block can be made of one mixture. Also, when it is desired to color the face of the block, this can be done and the balance of the block made without coloring, saving the expense of coloring the entire block.

These splendid machines are made with a wrought iron adjustable rocker arm with an eccentric handle which when drawn down prevents the mold from getting out of square, insuring a perfectly true block. There are hundreds of other machines offered for sale, but none of them is equipped so that a square block is assured each time without spending valuable time in adjusting and truing up the machine.

There are no cogs, no springs or other devices to get out of order. Frame and flasks are made of a very high grade of tough gray cast iron, strongly bolted and braced, making the machine most durable. All lugs on the face plates are of chilled iron, giving them the needed strength so as not to break when subjected to rough handling. Flask consists of front and back wall, two core end doors, face plates, two improved rocker arms and pallet fitted in the most workmanlike manner. End doors are hinged to the face plates, which open easily when releasing the block.

Single or Double Core

We furnish the KONKRETE KING BLOCK MACHINE with either single or double core flask as ordered; unless otherwise stated machine is equipped with a single core flask. KONKRETE KING is made in three sizes and so constructed that any one of the three flasks can be used on one standard, which is a great advantage should you wish to make blocks of different size. All that is necessary is to order flask attachment wanted. Are furnished either single or double core, in three different sizes for making blocks 8x8x16, 8x10x16 and 8x12x16 inches.

Pallets

With each machine sample wooden pallet is furnished. You can easily make more yourself at a small expense, with simple carpenter's tools.

Regular Outfit

The regular outfit consists of one full rock face plate, one-half and three-quarter rock face plate, two core end doors, one interchangeable return end door, rock design; two division plates, one gable block plate, two joist block attachments, stop-off plates, necessary cores, double end tapper, striker and sample wood pallet.

With this outfit you can make a whole or fractional size block; in fact, the machine is in every sense complete and the equipment can be added to from time to time and you can make any face or anything desired for an ordinary dwelling except mill work. We can furnish face plates in the following designs: Plain, rock, panel, cobblestone, tooled margin bush hammer, tooled face, tooled margin rock face, ashler face in six different designs, whirlwind scroll face, which are illustrated in the following pages. Unless otherwise specified the Machine is equipped with rock face design.

Capacity

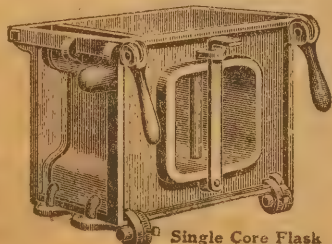
The capacity of the "Konkrete King" Machine varies as to skill and experience of operator, also whether concrete is mixed by hand or machinery. One man can turn out on an average of 100 blocks a day and two men can easily turn out 250 blocks. Practice increases speed. The faster the material is delivered to the block makers, the larger the output.

4-Z-3. "Konkrete King" Building Block machine. Complete for making 8x8x16 inch blocks. Weight, 175 lbs. Price, F. O. B. Factory, Cen. Wis. \$65.00

4-Z-4. "Konkrete King" Building Block machine. Complete for making 8x10x16 inch blocks. Weight, 200 lbs. Price, F. O. B. Factory, Cen. Wis. \$67.50

4-Z-5. "Konkrete King" Building Block machine. Complete for making 8x12x16 inch blocks. Weight, 235 lbs. Price, F. O. B. Factory, Cen. Wis. \$70.00

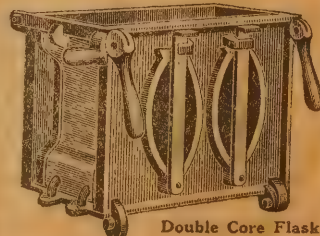
Extra Flasks for Konkrete King Block Machines



Single Core Flask

All flask attachments are made to fit one stand, either in a single or double core. The attachments are easily changed by releasing the two pivot or hinge bolts, allowing the rockers, which carry the core plate, to be spread so as to release the core plate. The back plate, to which the latches are attached, is used for all sizes of flasks. You require different widths of pallets for each flask. Flask attachments consist of core plate, two end cored plates, one return rock end, one gable block plate, necessary cores and stop-off plates. (Shipped from factory in Central Wisconsin.)

Write us explaining your requirements. We will advise you the Flask Attachment best suited to serve them and quote you lowest cash prices.



Double Core Flask

X-L-All Senior Cement Block Machine

The fastest machine on the market and extremely simple in construction and operation, as you will note from the illustrations, having absolutely no complicated parts to get out of order. Each machine is made in a thorough workmanlike manner with best gray iron castings; all parts are machine finished and made interchangeable.

Complete List of Parts Furnished

- | | |
|--|-----------------------------------|
| 1 Plain Face Plate for making whole blocks. | 1 Steel Striker. |
| 1 Plain Face Plate for making one-half and one-quarter blocks. | 1 Sample Wood Pallet. |
| 1 Rock Face Plate for making whole blocks. | 2 Core Plugs. |
| 1 Rock Face Plate for making one-half and one-quarter blocks. | 1 Right Hand Core End Door. |
| 1 Left Hand Rock Face End Door. | 1 Left Hand Core End Door. |
| 1 Left Hand Plain Face End Door. | 2 Pallet Plugs. |
| 1 Double End Tamper. | 1 Sample Iron Pallet. |
| 2 Dividing Plates for 1/2 and 1/4 size blocks. | 1 Steel Plate for inside corners. |
| 1 Graduating Bar. | 1 Steel Carrier. |
| 1 Steel Plate for making Gable Blocks. | 1 Joist Block Attachment. |
| | Face Plates to make 1/2 blocks. |

Our Concrete Block Outfits are more complete than furnished with any other similar type of machine. With this outfit you can make a full block, one-half and one-quarter blocks, return corner blocks, also round corner window blocks and joist blocks in both Rock and Plain Face Design. We give you your choice of any 2 styles of faces that you desire, but unless otherwise specified we always furnish THE X-L-ALL MACHINE with a plain and rock face.

Lot No. 4-Z-1218. 8x 8x16 machine complete as above, weight 450 lbs. \$ 95.00

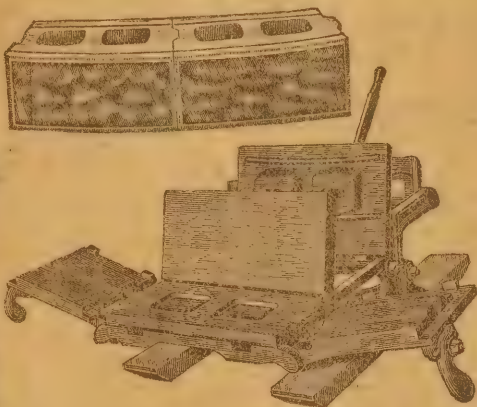
Lot No. 4-Z-1220. 8x10x16 machine complete as above, weight 480 lbs. 105.00

The X-L-All Machine is designed for the use of either iron or wood pallets. We recommend iron pallets; they cost but very little, if any, more than the wood pallets properly made. More blocks are lost by the use of poorly made wood pallets than the value represented by a full set of iron pallets. Iron pallets do not warp, and are practically indestructible. We furnish 1 each sample iron and wood pallet with each X-L-ALL BLOCK MACHINE.

If you want to make 8x8x16" and 8x10x16" blocks, it is not necessary to purchase two complete outfits. All that is necessary for you to order is one extra mold box outfit, which is described and illustrated on this page. You will thus have equipment for both size blocks at but a small additional investment.

Machine and parts are shipped direct from factory, near Chicago.

Always State
Radius and Size
of Face Plate



X-L-All Silo Block Making Attachment

You Will Save the Cost of Machine on One Silo

The illustration at the left is our Junior X-L-ALL Silo Machine attachment with mold box open. Note the curved face plates with beveled ends so as to make tongue and groove block so as to accommodate 6, 8, 10 and 12-foot radius, making a perfect close and lock joint. Also note half round in back plate, which leaves a concave in finished block to receive the re-inforcement wire. Note the lock joint in finished block to receive the re-inforcement wire. Note the lock joint in finished block to receive the re-inforcement wire. You can make silo 12 ft. in diameter, 16 ft. in diameter, 20 ft. in diameter, and 24 ft. in diameter, and any height you may desire. Silo block attachment that we can furnish for X-L-ALL Senior machine. Not found in any other make of machine but the X-L-ALL.

Lot No. 4-Z-1254. Size 8x8x16. Weight 70 lbs. Price\$21.00

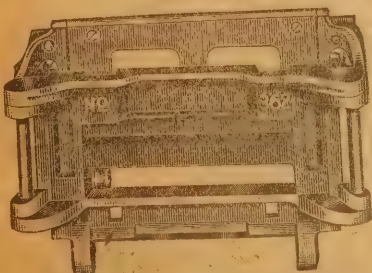
Lot No. 4-Z-1256. Size 8x10x16. Weight 90 lbs. Price\$22.00

Always state radius and style of face plates wanted, whether rock or plain.

Mold Box and Mold Box Outfit

\$42⁰⁰

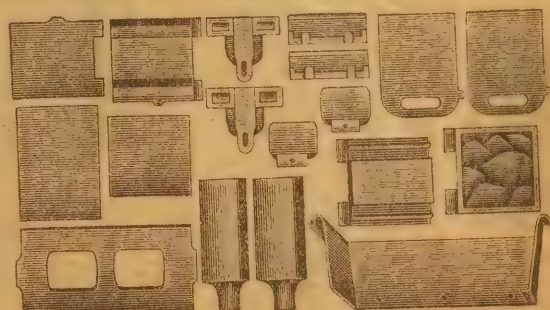
If you wish to make two size blocks, include with your order a mold box outfit. These outfits consist of 2 core hole plugs—2 pallet plugs—2 joist attachments—2 core end doors—1 plain end door—1 rock end door—1 cast iron pallet—2 dividing plates—1 carrier. All face plates are interchangeable. fit any mold box, and only one set of face plates are necessary.



The above illustration shows the mold box we furnish with this mold box outfit.

The Outfit Includes:

- | | |
|-------------------|--|
| 1 Mold Box. | 2 Dividing Plates. |
| 1 Iron Pallet. | Core Hole Plugs |
| 2 Cores. | Pallet Plugs. |
| 1 Rock End Door. | Joist Attachments. |
| 1 Plain End Door. | Piece of Steel for Gable Blocks. |
| 2 Core End Doors. | Piece of Steel for Inside Corner Blocks. |
| 1 Carrier. | |



The illustration above shows the equipment which we furnish with extra mold boxes for X-L-ALL Machines.

Prices for mold box outfits complete with mold box

No. 4-Z-104. Size 8x 8x16 in.	Price	\$42.00
No. 4-Z-105. Size 8x10x16 in.	Price	45.00

TELEPHONES AND ELECTRICAL SUPPLIES

HARRIS FLEXIBLE TOY TRANSFORMERS



No. 1 Toy with Switch fact, the different uses to which they may be put are unlimited. They are a practical substitute for all types of primary batteries.

Each transformer is equipped with a regulating switch, by means of which a range of voltages from 1½ volt to the maximum limit of the transformer is available in small and uniform steps.

Transformers are mounted in handsome black enameled steel cases and equipped with an extension cord and attachment plug, so that they can be attached to any alternating current lamp socket. Have no moving parts and with ordinary care will last a lifetime.

Standard stock transformers are wound to operate on 100 to 130 volts, 60 to 133 cycles. Transformers of special voltage or cycle furnished to order without extra charge.

No. 1. 10 voltages, 1½ to 15 volts in 1½ volt steps, 50 watts, 4½x3½x3½. **\$3.15**

No. 2. 16 voltages, 1½ to 24 volts in 1½ volt steps, 75 watts, 6x4x3½, 7 lbs. **\$5.00**

No. 3. 20 voltages, 1½ to 30 volts in 1½ volt steps, 150 watts, 5½x5x4, 10 lbs. **\$6.50**

HARRIS BELL RINGING TRANSFORMER



4-Z-20055. This transformer is designed to be connected to the house lighting circuit for the purpose of reducing the current to the low voltage, suitable for operating door bells, buzzers, annunciators, etc., thereby doing away entirely with the use of troublesome and expensive dry cells. The transformer is simply connected into the lighting and bell circuit. They are very easily installed and guaranteed to last a lifetime. Costs nothing to operate.

Stock transformers will operate on 100 to 130 volts, 60 to 133 cycle.

"Junior" Bell Ringer, 2½x2x6; 2½ lbs. **\$1.60**

WOOD BASE SWITCHES

For use on telephones, burglar alarms, closed circuit bell systems and battery circuits of all kinds. Hardwood base finished in oak, walnut and cherry.

4-Z-10532. Price, 1-point switch.....12c
4-Z-10535. Price, 2-point switch.....16c
4-Z-10537. Price, 3-point switch.....18c
4-Z-10539. Price, 4-point switch.....20c

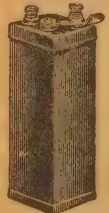
ELECTRIC BELL OUTFITS

For Door and Call Bell Service
4-Z-10587. Electric Bell Outfit. Consisting of dry battery, one bronze push button, one 3-inch iron box bell, 75 feet of annunciator wire and necessary staples.... **\$1.55**



HARRIS MOISTURE-PROOF MAKE AND BREAK SPARK COILS

For Stationary and Marine Make and Break Engines.



4-Z-20051. Coils and assembled in a substantial black enameled steel case, 2½" square by 6" high, occupying the same space in the battery box as an ordinary dry cell. They are very economical on battery power and generate at all times a hot, intense spark.

These coils are immersed in a special insulating compound, rendering them absolutely impervious to moisture. For this reason they can be installed in a damp or wet place without affecting their efficiency.

Any of our coils can be furnished with a single or double throw switch. A combined coil and switch is a very late improvement in Ignition Equipment. It simplifies the wiring circuit and eliminates the expense of one primary wire, battery switch and the mounting of same on the battery box.
No. 10. Make and break Coil without switch..... **\$1.05**
No. 10. Make and Break Coil with single throw switch..... **\$1.25**
No. 10. Make and Break Coil with double throw switch..... **\$1.35**

COMPACT BRIDGING TELEPHONES

4-Z-10301. 5-bar magnet compact bridging telephones with 1,000 Ohm Ringers complete with two dry batteries. Price, each, **\$17.50**

4-Z-10303. 5-bar magnet compact bridging telephones with 1,600 Ohm Ringers complete with two dry batteries. Price, each, **\$18.00**

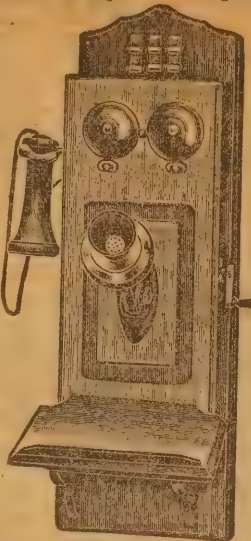
4-Z-10305. 5-bar magnet compact bridging telephones with 2,000 Ohm Ringers complete with two dry batteries. Price, each, **\$18.25**

4-Z-10307. 5-bar magnet compact bridging telephones with 2,500 Ohm Ringers complete with two dry batteries. Price, each, **\$18.50**

4-Z-10309. 4-bar magnet compact bridging telephones with 1,000 Ohm Ringers complete with two dry batteries. Price, each, **\$16.00**

4-Z-10311. 4-bar magnet compact bridging telephones with 1,600 Ohm Ringers complete with two dry batteries. Price, each, **\$16.80**

4-Z-10313. 4-bar magnet compact bridging telephones with 2,000 Ohm Ringers complete with two dry batteries. Price, each, **\$17.10**



4-Z-10315. 4-bar magnet compact bridging telephones with 2,500 Ohm Ringers complete with two dry batteries. Price, each, **\$17.10**

TWO-PARTY LINE TELEPHONES

4-Z-10319. Designed for use on short lines not exceeding five miles. Equipped with special 3-bar generators, first class receivers and transmitters, and can be used in connection with telephone or fence wire. Oak case, highly polished and parts are heavily nickel plated.

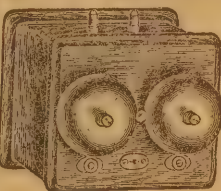
Price complete with two telephones and four dry batteries..... **\$18.50**

EXTENSION BELLS

These are additional call bells to be connected with telephones, and can be placed in the shop or any room distantly located from the telephone. It often occurs that it is necessary to leave the office or room in which the telephone is located, and it is very convenient to have the Extension Bell at some point where a telephone call will be heard and answered. It is necessary that the Extension Bell be of the same ringing strength. No additional battery is required to operate this bell.

4-Z-10401. 80 Ohm Extension Bell. **\$2.75**
4-Z-10403. 1000 Ohm Extension Bell. **3.50**
4-Z-10405. 1600 Ohm Extension Bell. **3.75**
4-Z-10407. 2000 Ohm Extension Bell. **4.00**
4-Z-10409. 2500 Ohm Extension Bell. **5.00**

We Carry a Complete Line of Repair Parts for the Telephone Outfits Above



RUBBER COVERED TELEPHONE WIRE



4-Z-10471. Double Conductor Rubber Covered Wire Dry Braid for inside use. No. 19 gauge. Per 100 feet..... **\$2.45**

4-Z-10473. Double Conductor, twisted and braided, saturated braid for outside use. No. 19 gauge. Per 100 feet.... **\$2.45**

ANNUNCIATOR AND OFFICE WIRE

4-Z-10475. Annunciator Wire. No. 18 Gauge. In one-half or one pound coils (150 feet to the pound). Per pound..... **90c**

4-Z-10477. Office Wire. No. 18 Gauge. In one pound coils. Per pound..... **90c**

4-Z-10678. One-half-inch Bell Wire Staples in one-half-pound packages. Per package..... **26c**



IGNITION CABLE



4-Z-20056. These cables are constructed so as to withstand the continuous presence of heat, grease and oils.

The cable is very flexible, built up of many fine copper strands, covered with two layers of high grade rubber, two layers of cambric braid and two layers of glazed cotton braid treated with special varnish.

¾-inch High Tension Magneto Cable. 12c
Low Tension, Primary Cable. Per foot.....9c

PONY OAK BRACKETS

4-Z-10481. Painted Pony Oak Brackets. For telephone and telegraph line construction. Can be fastened to side of pole or house. Do not require the use of cross arms. Weight, one-half lb. Each.....5c

PONY OAK PINS

4-Z-10483. 1¼-inch Painted Pony Oak Pins. For telephone and telegraph line construction. For use on cross arms. Each.....3½c



PONY GLASS INSULATORS

4-Z-10485. Pony Glass Insulators. For telephone and telegraph line construction. Packed 400 in barrel. Shipping weight per barrel, 300 lbs. per barrel, containing 400 insulators..... **\$21.50**
Each, in less than barrel lots.....6c

PORCELAIN INSULATORS

4-Z-10487. Porcelain Insulator No. 4½. New code. 1-inch space between bottom and groove. Diameter 1½ inches; height 1½ inches; hole ½ inch; groove ¾ inch. Price each..... **3½c**
Price per 100.....\$3.25



4-Z-10489. Porcelain Insulator No. 5½. New code. 1-inch space between bottom and groove. Diameter 1½ inches; height 1½ inches; hole ¾ inch; groove 1 inch. Per 100....\$4.50
Price each.....5c

In ordering always order in excess of your actual requirements to allow for any possible breakage in putting them up.

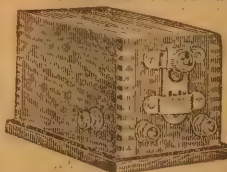
HARRIS JUMP SPARK COILS

For Stationary and Marine Engines.
4-Z-20050. Designed to answer the most right requirements of marine and stationary gas engines, regardless of horse power.

A hot, flaming arc is produced under compression with minimum current consumption, thereby increasing the life of the batteries.

Coils are equipped with a trouble-proof vibrator and guaranteed to give satisfaction and last a lifetime. It is impossible to adjust the vibrator to consume an excessive amount of current, neither can it be adjusted to get out of working order. Arcing at contact points is practically eliminated. Large points are used, made of the very best grade of tungsten.

Assembled in a dovetailed, highly polished seasoned oak case.
Single Cylinder. \$3.15. Double Cylinder. \$6.40
Extra vibrator bridge with tungsten point. 50c
Extra vibrator spring with tungsten point. 50c



183

**Dependable
Mowers
Priced Low**

Lawn Implements

**Sure Cutting
Scythes
Grass Catchers**

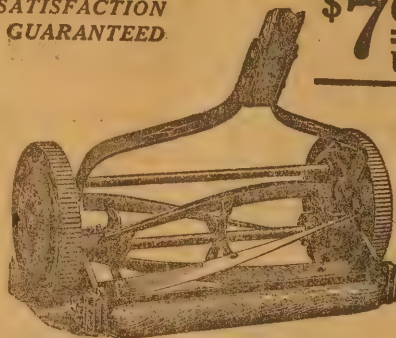
=COMET= LAWN MOWER

LIGHT RUNNING

=SUBURBAN= LAWN MOWER

**SATISFACTION
GUARANTEED**

**\$7⁰⁰
Up**



**See Our Pages of Lawn Fencing
of All Kinds**

Light running, accurately constructed machines, improved design, excellent material and workmanship. The wheels are 8 1/2 inches in diameter. High grade brass bearings. Three spiral blades, finely tempered and ground. Continuous shearing, 5 1/4-inch cylinder. An excellent machine for small lawns. Bed knife is made of the best quality crucible steel, adjusted to cut different heights of grass. Handles and rollers are made of selected hardwood, neatly and artistically finished. Complete with directions and wrench.

Order No.	Width Blade	Weight Lbs.	Price
4-Z-7601	12	40	\$7.00
4-Z-7603	14	42	7.35
4-Z-7605	16	44	7.70
4-Z-7607	18	46	8.05

A strictly high grade, durable high wheel, bronze bearing machine, having 10-inch drive wheels with extended rims and spoked centers. All bearing surfaces are in perfect alignment and make the Suburban Lawn Mower as free and easy in action as most of the ball bearing machines. Reel shaft is of solid steel. Adjusting screw has jam nut so that when placed remains in a fixed position. All parts are easily accessible and cannot get out of order. Four crucible steel blades, continuous shearing, finely tempered and accurately ground. The raised wheel rim protects the gear from dirt. The handles and rollers are made of selected hardwood. Furnished complete with directions and wrenches.

No.	Width Blade	Weight Lbs.	Price
4-Z-7641	14	53	\$10.35
4-Z-7642	16	56	10.85
4-Z-7643	18	59	11.35

BALL BEARING EUREKA LAWN MOWER

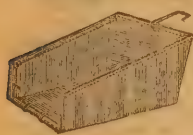
Our Eureka Ball Bearing Lawn Mower has 9-inch wheel with extended rim, four fine tempered and ground crucible steel blades, continuous shearing. Cutter bar is strong and rigid, mounted with oil tempered steel, ground to smooth, accurately beveled edge. Cones and cups are tempered steel and dust proof. Perfectly adjusted and held rigid by cone pointed screw, the same as in our Premier Lawn Mower. Noiseless ratchet positive in action. Cutter bar knife is adjustable by means of bolts, making a simple and rigid connection. Solid steel tree guard. Handle irons cannot become separated from the discs unless freed from the tongue. Handles and rollers are made of selected hardwood, nicely finished and varnished. Furnished complete with wrenches and directions, and fully guaranteed to please you.

Lot No. 4-Z-7645.	Width blade, 14 in.; wt., 46 lbs.	Price.....	\$10.50
Lot No. 4-Z-7646.	Width blade, 16 in.; wt., 48 lbs.	Price.....	10.85
Lot No. 4-Z-7647.	Width blade, 18 in.; wt., 50 lbs.	Price.....	11.20

BALL BEARING PREMIER LAWN MOWER

Desirable for use on any lawn. Drive wheels 10 inches in diameter with extended rim, elevating working parts above the dirt. Cones are adjustable to the very finest degree and held rigid by cone pointed screws. The ratchet is noiseless and positive in action. The ball bearings are attached in a manner that makes it possible to throw the reel eccentric with its bearings on the cones. Four crucible steel blades, finely tempered and ground. No bolts or cotter pins are used in the construction of this machine. Tree guard is made of solid steel. Easily adjusted to any height of cut. Roller and handle are made of selected hardwood nicely varnished. Complete with wrenches and directions.

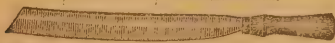
Lot No. 4-Z-7609.	Width blade, 14 in.; wt., 53 lbs.	Price.....	\$12.10
Lot No. 4-Z-7611.	Width blade, 16 in.; wt., 56 lbs.	Price.....	12.60
Lot No. 4-Z-7613.	Width blade, 18 in.; wt., 59 lbs.	Price.....	13.10
Lot No. 4-Z-7615.	Width blade, 20 in.; wt., 62 lbs.	Price.....	13.80



4-Z-7649. Adjustable Grass Catcher. Gathers grass the mower cuts, saving the labor of raking. Made of striped canvas, galvanized steel bottom, steel wire frame to fit 12 to 14-inch mower.
Price..... **\$1.05**

4-Z-7651. Adjustable Grass Catcher. Has galvanized bottom to fit mowers 16 to 20 in. wide.
Price..... **\$1.15**

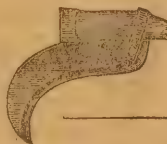
CLIPPER CORN KNIFE.



4-Z-7655. Extra Quality Steel carefully tempered and ground. Hardwood handle, finely finished.
Price..... **40c**

BUSH HOOKS WITH HANDLES.

4-Z-677. Bush Hooks. Made from high grade tempered tool steel. Strong and serviceable. Complete with handle.
Price..... **\$1.85**

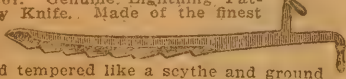


HAY KNIVES.

4-Z-7650. Blizzard Pattern Hay Knife. Made of high grade tool steel, finely tempered.
Price..... **\$1.50**



4-Z-7661. Genuine Lightning Pattern Hay Knife. Made of the finest tool steel, hardened and tempered like a scythe and ground sharp.
Price..... **\$1.50**



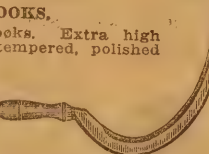
STEEL GRASS SHEARS.



4-Z-7617. High grade forged steel blade. Malleable iron shanks. Fully warranted.
Price..... **22c**

GRASS HOOKS.

4-Z-7621. Grass Hooks. Extra high edge steel, properly tempered, polished edges. Fully warranted.
Price..... **45c**



IMPROVED SCYTHE PATTERN.

4-Z-7623. Grass Hook and Lawn Trimmer. Has crucible steel cutting edges, finely tempered, properly shaped and balanced. Guaranteed to give perfect satisfaction.
Price..... **30c**

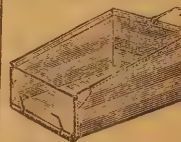
PATENT LOOP SCYTHE SNATHS.



4-Z-7630. Selected Seasoned Stock. Properly shaped, nicely finished and varnished. With patent loop and wrench. Price..... **\$1.85**

4-Z-7627. Two Ring Brush or Weed Snatch. Selected seasoned

stock, nicely finished and varnished. With two loop fasteners.
Price..... **\$1.98**



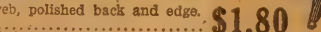
ADJUSTABLE GRASS CATCHER

4-Z-7629. Made of striped canvas. Steel wire frame, canvas bottom. Dust proof. Adjustable to fit mowers 12 to 20 inches wide.
Price..... **95c**

GRASS, WEED AND BUSH SCYTHES. Made of the highest grade steel. Properly shaped, finely tempered and finished. Ground sharp, ready for use.

4-Z-7631. Clipper Grass Scythe, Double ribbed.

Bronzed web, polished back and edge.
Price..... **\$1.80**



4-Z-7633. Western Dutchman Grass Scythe. Wide heel, bronzed web, polished back and edge.
Price..... **\$1.75**

4-Z-7635. Weed Scythe. Painted red. Polished cutting edge. Price..... **\$1.84**



4-Z-7637. Bush Scythe. Painted red. Polished cutting edge. Price..... **\$1.85**



CORUNDUM SCYTHE STONE.

4-Z-7625. Made of genuine corundum vitrified. The fastest cutting and best stone made. Oval shape. Size 1 1/2 x 7/8 x 10.
Price..... **12c**

HEATH HAY KNIFE.

4-Z-7663. Blade made in three sections from the best tool steel, carefully tempered. Has a draw out.
Price..... **\$2.15**



HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

**Durable
Rakes, Hoes
and Cultivators**

Garden Tools

**Hay Forks
Tree Pruners
Shears, Etc.**

WARREN PATTERN HOE.

4-Z-7559. Polished Steel Blade, 6 1/2 inches wide, 7 1/2 inches deep. Selected hardwood handle, 4 1/2 feet long. Made in superior manner.....\$1.05

WEEDING HOE AND RAKE.

4-Z-7561. An excellent Garden Hoe. Combines 2 tools in one. A strong and durable tool, which will give excellent service. Hardwood handle, length 4 1/2 feet.....\$1.05

CALIFORNIA PATTERN PRUNING SHEARS.

4-Z-7545. Extra Quality Black Finish Steel Blade. Malleable handle, volute steel spring. Length, 9 inches; 2 1/2 inch steel blades.....95c

4-Z-7547. Extra Quality California Pruning Shears. Nickel plated, 2 1/2 inch finely tempered steel blades. Length, 9 inches. Fully warranted.....\$1.45

PRUNING SHEARS.

4-Z-7539. Malleable Iron Handles. Spiral brass spring and link. Length, 9 inches; 2 1/2 inch steel blades.....1.40

THREE TINE HAY FORKS.

4-Z-7501. Three Tine Hay Forks. Forged from crucible steel. 12-inch bright oval steel tines. Selected bent hardwood handles, plain capped ferrules. Length, handles, feet.....4 4 1/2 5
Price, each.....85c 86c \$1.00

4-Z-7503. Three Tine Hay Forks. Capped and strapped ferrules. Have three 12-inch polished crucible steel oval tines. Extra quality. Length, handles, feet.....4 5 5 1/2
Price, each.....\$1.00 \$1.05 \$1.10

FOUR TINE HAY FORKS.

4-Z-7505. Four Tine Hay Forks. Forged from crucible steel. 12-inch Selected bent hardwood handles, plain capped ferrules. Length, handles, feet.....4 4 1/2 5
Price, each.....97c 99c \$1.05

4-Z-7507. Four Tine Hay Forks. Capped and strapped ferrules. Have four 12-inch polished crucible steel oval tines. Extra quality. Length, handles, feet.....4 5 5 1/2
Price, each.....\$1.10 \$1.20 \$1.35

HEADER FORKS.

4-Z-7509. A strictly high grade Fork. Strong and durable. Best fork made for handling alfalfa. Have four 16-inch polished oval crucible steel tines. Hardwood handle, capped and strapped ferrule.....\$1.62

**EXTRA QUALITY
BARLEY FORK.**

4-Z-7511. Strictly high grade fork, which will give excellent service. Has four 18-inch polished oval crucible steel tines, adjustable bail, 4 1/2-foot extra quality selected bent hardwood handle, capped and strapped ferrule.....\$1.90

SOLID SHANK GARDEN HOES.

4-Z-7549. The best Hoe made for general garden use. Has forged steel blades, steel socket 4 1/2-foot selected hardwood handles. Width of blades, in.....6 6 1/2 7
Price, each.....75c 85c 90c

TREE PRUNER

4-Z-7575. Pruning can be done without climbing or using a ladder. Furnished complete with wood pole. The blade, being thin, offers but slight resistance in cutting, and does not injure the bark. Is supported on both sides by a hook which guides it.

Length Complete
8 foot.....\$1.35
10 foot.....1.50

4-Z-7565. Extra knives for above Pruner, each.....15c



For use of line-man for cutting wires free from the branches. Also is desirable for orchard use. Is supported by a rope tied in the end of a lever. When released the spring opens the blade and is ready for another cut. Blades can be easily taken out and resharpened. Socket is threaded and can be readily screwed on pole of any required length.

4-Z-7567. Price is for Pruner only and does not include pole or rope. Price.....\$1.50

MALLEABLE IRON GARDEN RAKES.

4-Z-7563. Made in a superior manner and an excellent value. Hardwood handle; length, 5 1/2 feet.

Number of Teeth.....12 14
Price, each.....49c 55c

REVERSIBLE LAWN RAKES.

4-Z-7513. A great favorite. Can be used for grass or leaves. Has 24 heavy steel wire teeth. 6-foot selected hardwood handle.....65c



BRACED STEEL GARDEN RAKE

4-Z-7537. The very best garden rake made, fitting head in one piece of solid steel. Steel bows well braced. Selected hardwood handles. No. of Teeth.....12 11
Length handles, ft.....5 1/2 6
Price, each.....\$1.00 \$1.10

GRUB HOE.

4-Z-7515. Adze Eye Grub Hoe. 4-inch cut. Weight, about 3 1/2 pounds.....59c

HAZEL HOE.

4-Z-7517. Adze Eye Hazel Hoe. 6 inches wide. 10 inches long. Weight, about 3 pounds. Price.....\$1.15

PLANTERS' EYE HOE.

4-Z-7519. Planters Eye Hoe. Solid forged steel. Weight, about 1 1/2 pounds. Size, inches.....7 7 1/2 8
Price.....48c 50c 55c

GRUB HOE HANDLE.

4-Z-7521. Selected Hickory Handle, length 36 in.....34c

HAZEL OR PLANTERS' EYE HOE HANDLE.

4-Z-7523. Selected Hickory Handle, length 5 1/2 ft.....63c

SOLID SOCKET FIELD HOE.

4-Z-7551. A heavy, strongly made, durable Hoe. Suitable for any general field work. Blades are made of high grade forged steel. Heavy one piece steel sockets. Extra quality hardwood handles. 7-inch hoe has 5-foot handle; other sizes, 4 1/2 feet. Width of blade, inches.....6 6 1/2 7
Price, each.....88c 90c 95c

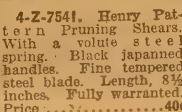
**GARDEN HAND
CULTIVATOR**

4-Z-7555. Strong and substantial. Has 5-foot pointed forged tempered steel teeth. 4-foot selected hardwood handle.....\$1.05



TWO-PRONG GARDEN HOE.

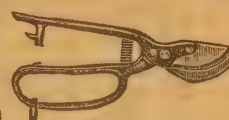
4-Z-7557. Two-pronged forged tempered steel blade. Width, 3 1/2 inches; height, 9 inches. 4-foot selected hardwood handle. Strong and durable.....45c



4-Z-7541. Henry Pattern Pruning Shears. With a volute steel spring. Black japanned handles. Fine tempered steel blade. Length, 8 1/2 inches. Fully warranted. Price.....40c

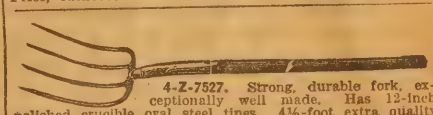
**LOOP HANDLE
PRUNING SHEARS.**

4-Z-7543. Japanned Malleable Handles. Spiral brass spring. Fine tempered polished steel blade. Length, 9 inches. Strong and durable.....\$1.95



LONG HANDLE MANURE FORKS.

4-Z-7525. A strong, well made fork. 12-inch oval polished crucible steel tines. 4 1/2-foot selected bent wood handle. Plain capped ferrule. No. of tines.....4 5 6
Price, each.....\$1.20 \$1.42 \$1.64

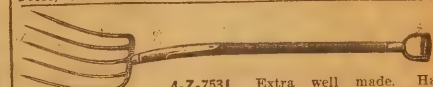


4-Z-7527. Strong, durable fork, exceptionally well made. Has 12-inch polished crucible oval steel tines. 4 1/2-foot extra quality bent hardwood handle. Capped and strapped ferrules. No. of tines.....4 5 6
Price, each.....\$1.28 \$1.32 \$1.75

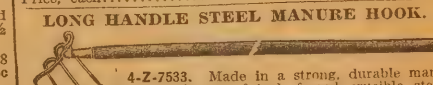


D HANDLE MANURE FORKS.

4-Z-7529. Strongly made and well finished. Polished oval steel tines. Selected bent wood handle, malleable "D" heads, hardwood grips. Plain capped ferrules. No. of tines.....4 5 6
Price, each.....\$1.27 \$1.50 \$1.70

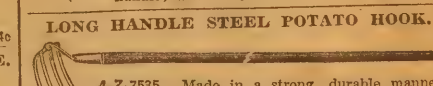


4-Z-7531. Extra well made. Has 12-inch polished crucible oval steel tines. Extra quality bent hardwood handle, malleable "D" heads, hardwood grips. Capped and strapped ferrules. No. of tines.....4 5 6
Price, each.....\$1.37 \$1.59 \$1.82



LONG HANDLE STEEL MANURE HOOK.

4-Z-7533. Made in a strong, durable manner. With four 9-inch forged crucible steel oval tines. 6-foot selected straight hardwood handle, plain capped ferrule, riveted through handle; will not pull off.....\$1.10



LONG HANDLE STEEL POTATO HOOK.

4-Z-7535. Made in a strong, durable manner. Four diamond back crucible tines; length, 6 1/2 inches; 4 1/2-foot extra quality hardwood handle. Plain capped ferrule, riveted through handle; will not pull off.....\$1.00



MORTAR MIXER.

4-Z-7553. A strong, durable hoe Made especially for mixing mortar and concrete. Has 6x10-inch forged steel blade, solid shank and socket. 6-foot selected hardwood handle.....\$1.25

U. S. Government Barbed Wire!!



Quadruple Coated Galvanized

Galvanized After Weaving

Here's your chance to buy quadruple galvanized coated barbed wire bought by us from the Government; made of 12 gauge open-hearth steel wire with 4-point barbs, $\frac{5}{8}$ in. long, spaced 3 in. apart. Reels contain 700 ft. of wire. Unlike ordinary galvanized wire, this stock has been heavily galvanized AFTER it was made. Standard galvanized barbed wire is made from wire galvanized before being made into barbed wire, which removes much of the galvanized coating, leaving the cut points of all barbs bare.

This barbed wire, being galvanized after weaving, is coated on all surfaces with a galvanizing four times as heavy as any standard barbed wire, which means that much additional life to the wire. Reels weigh about 60 lbs.

2-Z-110. Price in carload lots (625 reels or more), per reel

\$3.35

Shipped from Pittsburgh, Pa.

2-Z-105.	Price in lots (100 reels or more), per reel.....	\$3.40
2-Z-106.	Price in lots (50 reels or more), per reel.....	3.45
2-Z-107.	Price in lots (25 reels or more), per reel.....	3.50
2-Z-108.	Price in lots less than 25 reels, per reel.....	3.55

Farmers' New Mixed Wire Nails

Sizes 3D to 40D

A splendid assortment of brand new wire nails in the sizes that you use every day. Indispensable about the home, workshop and farm. The same quantities bought at retail would cost you double this price. They always come in handy. Don't forget to include this bargain with your order.

2-Z-4055. 100-lb. keg of mixed nails, 3d to 40d, sale price. **\$2.95**

\$2⁹⁵

Per 100 Lbs.



Standard, Full Length Wire Nails—All Sizes

These wire nails are regular standard stock, high grade and full length. The prices below are figured from the latest quotations received by us at the time this book was printed. The present uncertain conditions of the nail market necessitate that all our quotations be made subject to change without notice. Your order will be shipped at prices which prevail at the time it is received. We will see that you get every possible benefit of a decline in prices.

STANDARD NAIL SIZES AND LENGTHS IN INCHES.

Size	Length, In.	Diameter
60d.....	6	9/32 of an inch
40d.....	5	7/32 of an inch
30d.....	4 1/2	13/64 of an inch
20d.....	4	3/16 of an inch
10d.....	3 1/2	5/32 of an inch
8d.....	3	5/32 of an inch
6d.....	2 1/2	1/8 of an inch
4d.....	2	1/8 of an inch
3d.....	1 1/2	3/32 of an inch
2d.....	1	3/32 of an inch

No. 2-Z-4001. COMMON WIRE NAILS.

Size	Price Per Keg	Per Lb.
2d.....	\$5.70	
3d.....	5.10	
4d.....	3.95	
6d.....	4.85	
8d.....	4.55	
10d.....	4.45	
12d.....	4.40	
16d.....	4.35	
20-60d.....	4.25	

6 1/2c

No. 2-Z-4003. FINISHING NAILS.

Size	Per Keg	Per Lb.
2d.....	\$6.25	
3d.....	5.80	
4d.....	5.50	
6d.....	5.35	
8d.....	4.85	
10d.....	4.70	
12d.....	4.65	
16d.....	4.50	
Larger.....	4.40	

7 1/2c

No. 3-Z-4005. CASING NAILS.

Size	Per Keg	Per Lb.
2d.....	\$5.95	
3d.....	5.60	
4d.....	5.35	
6d.....	5.00	
8d.....	4.75	
10d.....	4.60	
12d.....	4.55	
16d.....	4.45	
Larger.....	4.35	

7 1/2c

CEMENT COATED NAILS.

Size	Per Keg	Per Lb.
3d.....	\$5.40	
4d.....	5.05	
6d.....	4.85	
8d.....	4.55	
10d.....	4.45	
16d.....	4.55	
20-60d.....	4.45	

6 1/2c

No. 2-Z-4009. FINE OR LATH.

Size	Per Keg	Per Lb.
3d.....	\$5.60	
4d.....	5.30	

7 1/2c

No. 2-Z-4008. FENCING NAILS.

Size	Per Keg	Per Lb.
6d.....	\$4.70	
8d.....	4.50	
10d.....	4.45	
12d.....	4.35	
16d.....	4.30	
20d.....	4.25	

6 1/2c

No. 2-Z-4013. GALVANIZED SHINGLE NAILS.

Size	Per Keg	Per Lb.
3d.....	\$6.65	
4d.....	6.45	

8c

STEEL WIRE BRADS

No. 2-Z-4017. Put up in 1-pound packages.

Length, inches.....	1/2	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/2	3
Gauge wire.....	19	18	18	17	16	15	15	14	14
Price, per pound.....	19c	18c	16c	15 1/2c	15c	14 1/2c	14c	13c	13c

SLIM WIRE NAILS

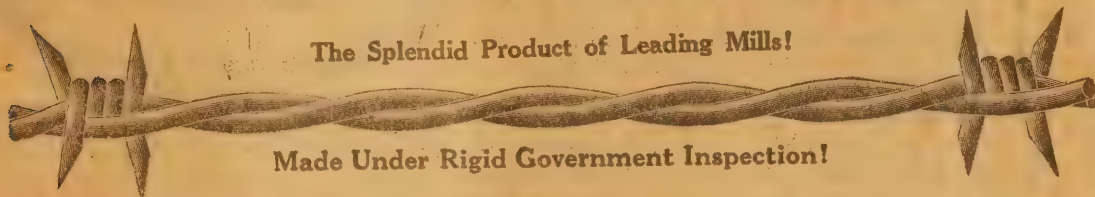
No. 2-Z-4619. Put up in 1-pound packages.

Length, inches.....	3/4	1	1 1/4	1 1/2	1 3/4	2	2 1/2	3
Gauge wire.....	18	17	16	15	15	14	13	13
Price, per pound.....	18c	14c	14c	13c	13c	12c	11c	11c

U. S. Government Barbed Wire!!

Greatest Offers Ever Made!!

For a limited time only we offer highest grade barbed wire purchased at a price less than the actual cost of manufacture. Following our usual custom, we are now offering the entire lot to our customers at the big money saving prices below.



The Splendid Product of Leading Mills!

Made Under Rigid Government Inspection!

Here is your chance to secure finest barbed wire made—the product of leading wire mills. Made under Government Inspection, so rigid that only the highest grade wire was accepted in this lot. Made of 12 gauge open hearth steel wire of highest quality, insuring extra strength. This extra strength gives long life to the wire; will outlast any ordinary barbed wire. Made in extra heavy weight, only with 4 point barbs, 5/8-in. long, spaced 3-in. apart.

This heavy high grade barbed wire is carefully coated with a special weather-resisting paint. This paint has undergone every possible test in the United States Government Laboratories and was accepted by Government Chemists as the best paint for protection of wire possible to produce. Using this extra heavy wire, coated with this perfect paint protection, you are assured of longest possible service under the most severe conditions. Put up in reels containing 700 ft. each. Weight, per reel, 58 lbs.

Low
Quick Sale
Prices

2-Z-100X.	Price in carload lots (625 reels or more) per reel.....	\$1.45
2-Z-101X.	Price in lots of (100 reels or more) per reel.....	1.50
2-Z-102X.	Price in lots of (50 reels or more) per reel.....	1.55
2-Z-103X.	Price in lots of (25 reels or more) per reel.....	1.60
2-Z-104X.	Price in lots less than 25 reels, per reel.....	1.65

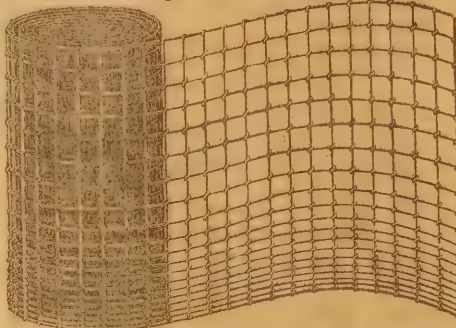
Order
Liberal
Now!!

Crimped Wire for Reinforcing

\$4.75 Per 100 Lbs.

2-Z-986. Crimped wire for Reinforcing. Strengthen your concrete work by using crimped wire for reinforcing. We can furnish this material made up of No. 9 gauge annealed wire, crimped, and cut to any length you wish up to 20 ft. This wire has a slight surface rust, which is better for use in concrete than a smooth wire, as the concrete adheres more readily to the rusted surface. Specify length of wire required when ordering. Put up in 100-lb. bundles. Per 100 lbs. **\$4.75**

Poultry Wire Snap!!



We have just purchased a large quantity of slightly defective poultry fencing, defects consisting principally of an occasional loose wire, or some minor defect in weaving, which prevent us from offering it as perfect fencing. The defects will not in any way interfere with the usefulness or service of the fencing.

The very best fencing for general poultry purposes made in square mesh style; easily stretched tight and trim without bagging. Made of best steel wire, heavily galvanized, top and bottom wires No. 15 gauge; stay and strand wires No. 17 gauge. Upright wires or stays spaced 4 in. apart. Line wires spaced from bottom to top on 36 in. fencing as follows:

1 in., 1 in., 1 in., 1 in., 1 1/4 in., 1 1/4 in., 1 1/4 in., 1 1/4 in., 2 1/4 in., 2 1/4 in., 3 1/4 in., 4 in., 4 in., 4 in., 4 in.

Higher fences have sufficient additional strand wires spaced 4 in. apart to make their height. Put up in ten rod rolls only.

Number.	Height.	Number of bars.	Price per rod.
5-Z-201	36 in.	14	\$0.36
5-Z-202	48 in.	20	.48
5-Z-203	60 in.	23	.55
5-Z-204	72 in.	26	.65

Pointed Drive Metallic Painted Posts

Harris Pointed Metallic Painted Tubular Posts fitted with adjustable clamps, made of 2 inch outside diameter charcoal iron tubing. Low price for this sale only.

No.	Overall In.	Clamps.	Weight Lbs.	Price Each.
2-Z-317	.60	2	11 1/2	44c
2-Z-318	.72	3	12 1/2	48c
2-Z-319	.77	4	13 1/2	52c
2-Z-320	.81	5	14 1/2	56c



Galvanized Wire

Heavily
Galvanized



\$3.00 Per 100 Lbs.

2-Z-984. New galvanized wire, put up 100 lbs. in a bundle, consisting of shorts or mill ends, accumulated from regular galvanized fencing wire, varies in length from 50 ft. to 200 ft., and is sorted one gauge to the bundle.

No. 8 gauge, per 100 lbs.....	\$3.00
No. 9 gauge, per 100 lbs.....	3.00
No. 10 gauge, per 100 lbs.....	3.05
No. 11 gauge, per 100 lbs.....	3.10
No. 12 gauge, per 100 lbs.....	3.15
No. 13 gauge, per 100 lbs.....	3.25
No. 14 gauge, per 100 lbs.....	3.35

Harris Galvanized Barbed Wire

"Harris" special barb wire, 30 rods to the reel, made of No. 14 gauge heavy galvanized open hearth steel iron, two point barbs, put up in 80 rod reels, sold by the spool.

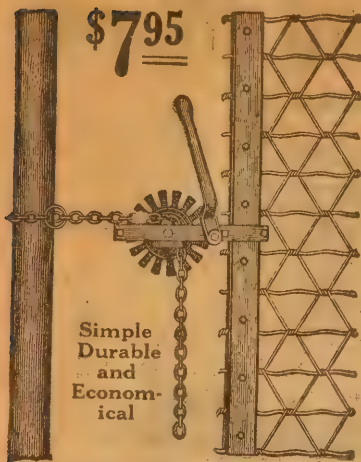
2-Z-11. 2 point galvanized barbed wire, barbs 5" apart.	Per reel.....	\$3.10
2-Z-13. 2 point galvanized barbed wire, barbs 3" apart.	Per reel.....	\$3.40

Glidden Pattern Barbed Wire

Glidden Pattern barb wire, made of No. 12 gauge open hearth steel, heavily galvanized, put up in 80 rod reels, sold by the spool. Can be furnished in either hog or cattle wire, two or four point.

2-Z-30. 2 point galv. barbed wire, barbs 5" apart. Per reel.....	\$4.50
2-Z-31. 2 point galv. barbed wire, barbs 3" apart. Per reel.....	\$5.00
2-Z-32. 4 point galv. barbed wire, barbs 5" apart. Per reel.....	\$4.85
2-Z-33. 4 point galv. barbed wire, barbs 3" apart. Per reel.....	\$5.20

"Perfection" Wire Stretcher



\$7.95

Simple
Durable
and
Economical

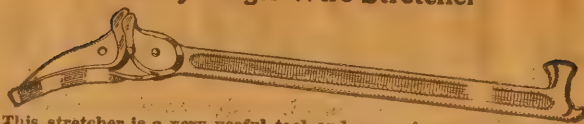
Two chains and two stretchers on the one set of wood clamps. **\$7.95**
No. 2-Z-210. "Perfection" stretcher, single weight, 75 lbs.
No. 2-Z-211. "Perfection" stretcher, double weight, 125 lbs. \$13.35

This illustration shows in detail the single "Perfection" Fence Stretcher, as well as the manner of attaching to the posts and fence. The wonderful power, simplicity of action and ease of operation of this stretcher has made it very popular. They lock automatically at every half turn of the lever and never slip. The metal parts are of the highest quality steel and malleable iron and the clamps of selected hard wood. The chain is long enough for a pull of nine feet.

While the single stretcher is generally used and gives entire satisfaction, there are some that prefer the double stretcher, and in order to meet the preferences of all we offer both. We are furnishing these stretchers at very low prices, and you will find the quotations below just about one-half the prices usually asked for similar stretchers.

The double stretcher is identically the same as the single one with the exception that it has two sets of wood clamps.

Handy Single Wire Stretcher



This stretcher is a very useful tool and every farmer or fence builder should have one of them. It will stretch smooth or barbed wire and possesses wonderful power. As the stretcher slips around on the post it holds the wire against the post, which makes it an easy matter to staple the same. On the end of the handle there is an effective staple puller and a very good hammer. We guarantee the stretcher fully.
No. 2-Z-212. Price, each **\$1.35**



BRACE WIRE

The Brace Wire we offer is of No. 9 gauge and is drawn from Soft Open Hearth Steel. It twists nicely and gives the very best of satisfaction. In each coil there is about enough wire for three good braces. You can save both money and trouble by ordering a few coils of brace wire when placing your order for fencing.
No. 2-Z-203. Price per coil of 10 pounds. **60c**

"HARRIS"

Wire Splicer,
Staple Puller
and Hammer

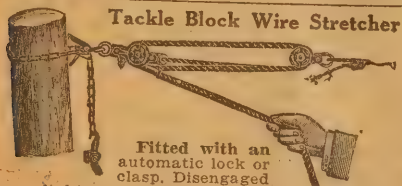


95c
COMPLETE

This is a wire splicer, staple puller, and hammer combined, not to mention all the other uses around the house and barn and one of the handiest tools you can have about the farm. It is not only the best, but the only combination tool of its kind. Made of high grade malleable iron, and is very strong and durable.

No. 2-Z-209. Price, each. **95c**

Tackle Block Wire Stretcher



Fitted with an automatic lock or clasp. Disengaged by a slight movement of the hand rope. Can also be used as a safety hoist, with which any man can lift 500 pounds. Furnished complete with 16 1/2 feet of 3/8-inch pure manilla rope.

No. 2-Z-56. Price, each **\$1.30**

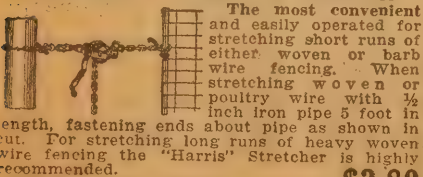
Ratchet Steel Wire Stretcher with Rod



No. 2-Z-55. This is a straight line stretcher made of steel and malleable iron. Extra strong and easily operated. Furnished complete with two feet of steel chain.

Price, each. **\$1.05**

The "Harris" Barbed Wire Stretcher



The most convenient and easily operated for stretching short runs of either woven or barbed wire. When stretching woven or poultry wire with 1/2 inch iron pipe 5 foot in length, fastening ends about pipe as shown in cut. For stretching long runs of heavy woven wire fencing the "Harris" Stretcher is highly recommended.

Lot No. 2-Z-60. Price **\$2.80**

Polished Fence Staples \$6.50 Keg

Fence staples, made of No. 9 gauge, put up regularly 100 lbs. to the keg. There are 120 1-in. staples to a lb., 100 1 1/4-in. staples to a lb. Prices as follows in keg lots:

No. 2-Z-35. 1-inch long, per 100 lbs. \$6.50
1 1/4-in. long, per 100 lbs. 6.50
We will also furnish same in smaller quantities as follows:

Put up in 10 lb. pkg. Per pkg. \$0.75
Put up in 20 lb. pkg. Per pkg. 1.50
Put up in 50 lb. pkg. Per pkg. 3.75

Poultry Netting Staples

Made of No. 14 gauge. There are 230 1-in. staples to a lb.

No. 2-Z-36. 1 in. long, in keg lots per 100 lbs. \$6.95

We will also furnish same in smaller quantities as follows:
Put up in 5 lb. pkg. Per pkg. \$0.40
Put up in 10 lb. pkg. Per pkg.80

Bull Dog Wire Grip

A very handy tool for tightening loose wire. Can be attached to a bar and strong leverage secured. Fitted with swivel.



2-Z-53. Price each. 38c

Automatic Stock Waterer

4-Z-3858. Can be readily connected to barrel or tank. Equipped with automatic valve, will not rust, which shuts off supply of water when bowl is filled. Fills up as fast as the stock is watered, insuring a fresh supply of water, preventing waste. Capacity about 4 quarts. Size of connections, 3/4 inch. Weight about 12 pounds. Price, \$2.00



Galvanized Hitching Rings

4-Z-3965. 2 1/4-inch Malleable Ring, wrought steel screw.
Price, each. 12c



Steel Hay Rack



Corner hay rack, made of heavy steel, solid, projects from corner 3 ft.; weight about 25 lbs.
4-Z-12053. Each. **\$2.60**

Feed Box



Corner feed box, with rolled flange; prevents waste of feed. Made of heavy cast iron. Size, 17 in. on side by 10 in. deep.
4-Z-12055. **\$3.10**
Price, each.

4-Z-4401. The strongest and easiest running grindstone made. The frame is constructed from angle steel extra well braced and strongly reinforced, doing away with the vibration that is generally in all other ball bearing machines.

Fitted with four sets of the highest grade ball bearings ever put into a grindstone. Ball bearings on journals and cranks. Axles are made of steel, accurately centered. Stone is the best selected Berea grit 20 to 22 inches in diameter, 2 to 2 1/2 inches thick, and weigh on an average of 60 pounds. Frame and stone shipped complete, carefully crated. Face of stone is protected by wood strip to prevent chipping in transit. Safe delivery guaranteed. Shipping weight about 85 pounds. Price, each. **\$7.50**



Harris Family Grindstone



The Harris Family grinder is just the thing for the home made in four sizes from the best material, fitted with convenient adjustable tool rests, nicely finished in black enamel. Equal to the best Emery Grinder on the market.

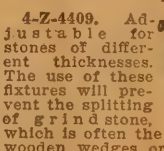
4-Z-4401. 4-in. case; wheel size, 4x4x1. Price, \$2.75
4-Z-4406. 5-in. case; wheel size, 5x1x1. Price, \$3.50
4-Z-4408. 7-in. case; wheel size, 6x1x1. Price, \$4.50
7-Z-4410. 8-in. case; wheel size, 7x1x1. Price, \$5.25

Ball Bearing Grindstone Fixtures



4-Z-4407. Made with ball bearing journals. Reduces friction and saves labor. Will support stones from 1 1/2 to 30 inches in diameter. Ball bearings are the best hardened steel and run in hardened steel cups.
Price per set. **\$1.85**

Ball Bearing Grindstone Fixtures



4-Z-4409. Adjustable for stones of different thicknesses. The use of these fixtures will prevent the splitting of grind stone, which is often the case when wooden wedges or axles are used. Japanned finish.
Length, inches. 15 17 19 21
For Stone, lbs. 40 60 80 100
Price, each. \$0.85 \$0.94 \$1.00 \$1.10

Government Poultry Netting \$3.75 per bale

Galvanized 2-inch Diamond Mesh!

JUST purchased from the U. S. Government Army Depot at Columbus, Ohio, 150,000 bales of this high grade brand new poultry netting. Woven from 19 gauge Bessemer Steel Wire, heavily galvanized. Made under rigid inspection for the U. S. Government by the American Steel & Wire Co. and other leading wire mills. All 19 gauge 2 in. mesh netting in the two most desirable heights. Put up in bales of 150 lineal feet. You can now buy this netting at a substantial saving with an assurance of getting it quickly from us during this sale. Don't delay. Leading wire mills have withdrawn all quotations on wire and wire products, which strongly points to a serious shortage in this line and undoubtedly a big price advance.

2-Z-206. Height 36 in., mesh 2 in., per bale of 150 lineal feet, now **\$3.75** | **2-Z-207.** Height 72 in., mesh 2 in., per bale of 150 lineal feet **\$7.45**

Galvanized Screen Wire

No. 2-Z-49

Our Galvanized or Pearl wire is made by an entirely new process and is better rust-resistant than the ordinary bright wire, as it possesses remarkable rust-defying qualities. It is not affected by moisture or salt sea air and if given proper care will last years and years.

Our Galvanized Screen Wire is put up in rolls of 25, 50 and 100 running or lineal feet, 12 wires to the inch each way.

Width Inches	25 ft. Rolls	50 ft. Rolls	100 ft. Rolls
24	\$1.93	\$3.85	\$ 7.00
26	2.08	4.15	7.56
28	2.25	4.50	8.20
30	2.43	4.85	8.30
32	2.58	5.15	9.30
34	2.73	5.45	9.94
36	2.88	5.75	10.50
42	3.35	6.70	12.25
48	3.85	7.70	14.00

Painted Black Screen Wire

No. 2-Z-48

The Painted Screen Wire we are offering is the best of its kind on the market and better than usually found on the cheap stock screens. It is put up in rolls of 50 and 100 running or lineal feet and measures each way 12 wires to the inch.

Width, inches	50 ft. Rolls	100 ft. Rolls
24	\$2.86	\$ 5.20
26	3.10	5.62
28	3.35	6.08
30	3.60	6.50
32	3.83	6.95
34	4.06	7.38
36	4.29	7.80
42	5.00	9.10
48	5.72	10.40

Crimped Wire Stall Guards

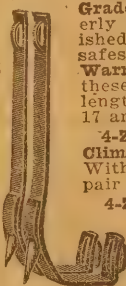
\$3.00



Made of heavy Crimped Steel Wire 2 1/2 inch diamond mesh, 1 inch channel iron frame, drilled for screws. Steel oval band top, painted green. Best wire stall guard made. Height, 25 inches.

No.	Length	Price, Ea.
2-Z-12041	5 ft.	\$3.00
2-Z-12042	6 ft.	3.60
2-Z-12043	6 1/2 ft.	4.00
2-Z-12044	7 ft.	4.25

Linemen's Climbers



Made from Heavy, High Grade Polished Steel, properly tempered, nicely finished. The strongest and the safest Climbers made. Fully Warranted. We furnish these Climbers in standard lengths: 15, 15 1/2, 16, 16 1/2, 17 and 17 1/2 inches.

4-Z-10482. Lineman's Climbers, Eastern Pattern. Without Straps. Per pair\$3.00

4-Z-10484. Extra Spurs for Eastern Pattern Climbers. Without Straps. Per pair90c

4-Z-10486. Climbers' Straps. With large leather pads which protect the knee. Can be used with other makes of Climbers, either Eastern or Western Pattern. Per Set of Four...\$2.00

Linemen's Splicing Clamps

4-Z-10476. Made of the Highest Grade Tool Steel, Properly Tempered. Length 10 1/2 inches. Full polished finish, spring tempered handles which will not bend out of shape. Mill cut teeth. Has five holes for Nos. 6, 8, 10, 12 and 14 wire....\$2.50



Crimped Wire Window Guards

Guard against burglars and protect your windows from being broken. Where it is necessary to keep windows open for ventilation, they are almost a necessity. Our guards are made by one of the largest manufacturers in this line.

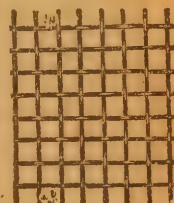
2-Z-4030. Our diamond mesh wire window guards with round iron rod frame, we quote as follows:



Size Mesh Inches	Gauge of Wire	Diameter Frame Inches	Price Per Sq. Ft.
1 3/4	14	1 1/4	33c
1 1/2	12	1 1/4	31c
1 1/4	12	1 1/4	33c
1 1/4	12	1 1/4	27c
1 1/4	12	1 1/4	28c
1 1/4	12	1 1/4	29c
1 1/4	10	1 1/4	30c
1 1/4	8	1 1/4	34c
1 1/4	12	1 1/4	33c
1 1/4	10	1 1/4	31c
2	12	1 1/4	27c
2	10	1 1/4	28c
2 1/2	8	1 1/4	34c
2 1/2	10	1 1/4	27c
2 1/2	8	1 1/4	34c

Galvanized Wire Cloth

This cloth is generally known as hardware cloth, used for window guards, cages, fruit evaporators, screens and places where a heavy screen is needed. Furnished in the following sizes:



No.	W. Ins.	G.	Mesh to Mesh	Per 100 Lineal Ft.	Per Lineal Ft.
2-Z-50	24	23	4 mesh to 1 in.	\$15.00	17c
2-Z-51	30	23	4 mesh to 1 in.	18.75	20c
2-Z-52	36	23	4 mesh to 1 in.	22.50	24c
2-Z-53	24	19	2 mesh to 1 in.	13.50	15c
2-Z-54	30	19	2 mesh to 1 in.	16.88	19c
2-Z-55	36	19	2 mesh to 1 in.	20.25	22c

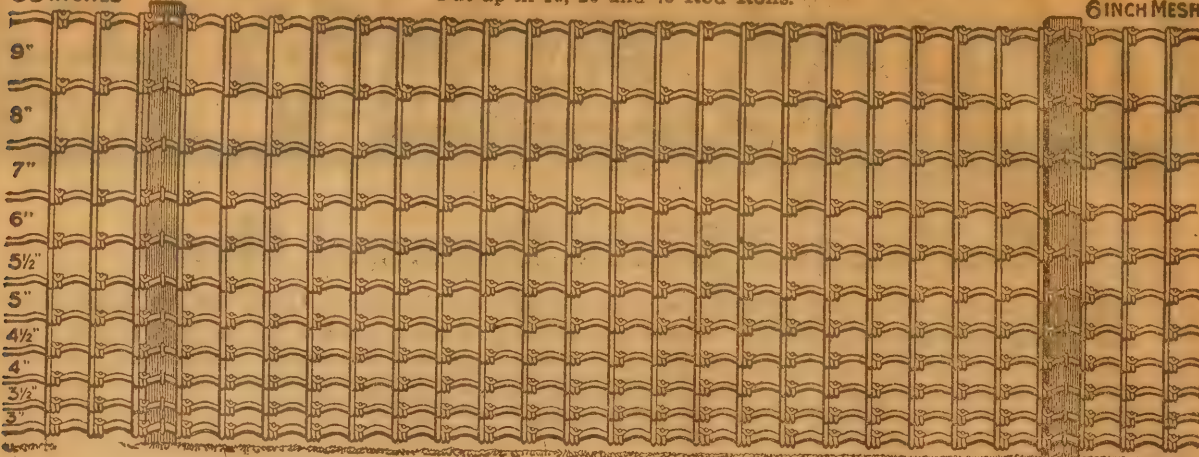
HARRIS SQUARE MESH FENCE

You will find this to be a very durable fencing. It is made of open hearth steel galvanized with the best quality of pure zinc spelter. This fencing has uniform tension curves in the line wires, which provide amply for contraction and expansion, due to changes in temperature, and keep the fence straight and tight during all seasons of the year. The fence will stretch evenly and perfectly over either level or hilly ground.

55 INCHES

Put up in 10, 20 and 40 Rod Rolls.

6 INCH MESH



55-Inch Square Mesh Fence

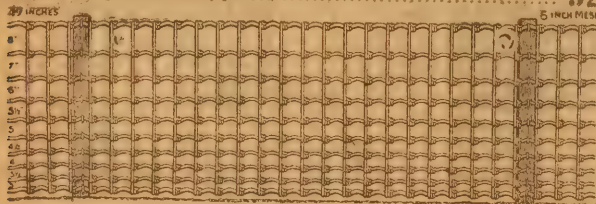
11 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 12 gauge High Carbon Hard Steel Coiled Spring intermediate line wires. No. 13 gauge stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 9 inches at the top. Approximate weight of 100 rods, 1,120 pounds. Shipped from factory near Chicago.

2-Z-111. 55-inch "HARRIS" fence. Price, per rod..... **69c**
 2-Z-101. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 890 pounds. Price, per rod..... **52c**

55-Inch Extra Heavy Square Mesh Fence

11 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from open hearth steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 9 inches at the top. Approximate weight of 100 rods, 1,410 pounds.

2-Z-111 1/2. 55-inch "HARRIS" fence. Price per rod..... **86c**
 2-Z-101 1/2. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 1,100 pounds. Price per rod..... **65c**



47-Inch Harris Square Mesh Fence

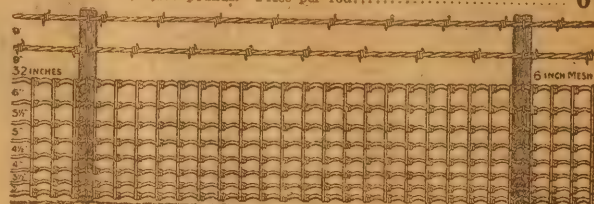
10 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 12 gauge intermediate line wires. No. 13 gauge stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 8 inches at the top. Approximate weight of 100 rods, 1,020 pounds. Shipped from factory near Chicago.

2-Z-113. 47-inch "HARRIS" fence. Price per rod..... **62c**
 2-Z-103. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 810 pounds. Per rod..... **47c**

47-Inch Extra Heavy Harris Square Mesh Fence

10 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. Spaces between line wires vary from 3 inches at the bottom to 8 inches at the top. Approximate weight of 100 rods, 1,280 pounds.

2-Z-113 1/2. 47-inch "HARRIS" fence. Price per rod..... **77c**
 2-Z-103 1/2. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 990 pounds. Per rod..... **58c**



32-Inch Harris Square Mesh Fence

8 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 12 gauge intermediate line wires. No. 13 gauge stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 6 inches at the top. Approximate weight of 100 rods, 980 pounds. Shipped from factory near Chicago.

2-Z-117. 32-inch "HARRIS" fence. Price per rod..... **48c**
 2-Z-107. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 650 pounds. Per rod..... **37c**

32-Inch Extra Heavy Harris Square Mesh Fence

8 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 6 inches at the top. Approximate weight of 100 rods, 980 pounds.

2-Z-117 1/2. 32-inch "HARRIS" square mesh fence. Price per rod..... **58c**
 2-Z-107 1/2. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 780 pounds. Per rod..... **45c**



26-Inch Harris Square Mesh Fence

7 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 12 gauge intermediate line wires. No. 13 gauge stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 5 1/2 inches at the top. Approximate weight of 100 rods, 720 pounds. Shipped from factory near Chicago.

2-Z-115. 26-inch "HARRIS" fence. Price per rod..... **42c**
 2-Z-105. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 700 pounds. Per rod..... **42c**

39-Inch Extra Heavy Harris Square Mesh Fence

9 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 7 inches at the top. Approximate weight of 100 rods, 1,120 pounds. Shipped from factory near Chicago.

2-Z-115 1/2. 39-inch "HARRIS" square mesh fence. Price per rod..... **68c**
 2-Z-105 1/2. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 890 pounds. Per rod..... **52c**

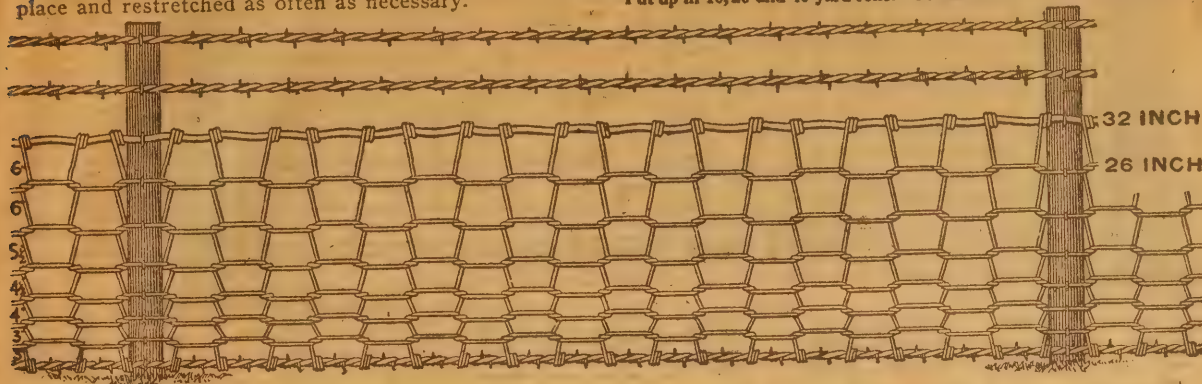
7 wires high. Stays 6 inches apart. No. 9 gauge High Carbon Hard Steel Coiled Spring wires at the top and bottom. No. 11 gauge intermediate line wires. No. 12 gauge stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires vary from 3 inches at the bottom to 5 1/2 inches at the top. Approximate weight of 100 rods, 850 pounds. Shipped from factory near Chicago.

2-Z-119 1/2. 26-inch "HARRIS" square mesh fence. Price per rod..... **51c**
 2-Z-109 1/2. Same as above, but with stays 12 inches apart. Approximate weight of 100 rods, 680 pounds. Per rod..... **39c**

Perfection and Victor Hog Fence

This fence is not as heavy as some of our other hog fences, but it possesses all the strength necessary for turning even the most vicious hogs. The barbed wire woven into the bottom is an exclusive feature that prevents hogs from lifting the fence with their noses and passing under.

This fencing is especially adapted for use as a temporary fence, for it can be easily moved from place to place and restretched as often as necessary. Put up in 10, 20 and 40 yard rolls. Prices do not include barbed wire.



26-INCH VICTOR HOG FENCE

7 wires high. Barbed wire woven into bottom. Stays 6 inches apart. No. 11 gauge High Carbon Hard Steel Coiled Spring Wire at the top. No. 14 gauge intermediate line and stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires, commencing at the bottom, are as follows: 3, 3, 4, 4½, 5½ and 6 inches. Approximate weight of 100 rods, 425 pounds. Shipped from factory near Chicago.

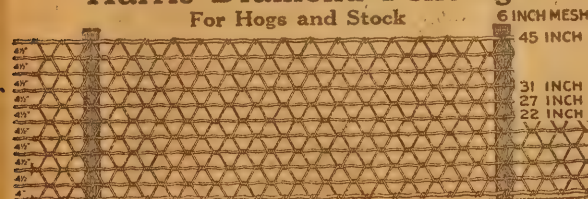
2-Z-122. 26-inch Victor Hog Fence. Price, per rod..... **27c**
NOTICE—By using two or three strands of barbed wire above Victor Hog Fence an excellent general purpose farm fence can be made at a very low cost. Barbed wire not included at this price.

32-INCH VICTOR HOG FENCE

2-Z-123. Same as above, but 32 inches high. 8 wires high. Approximate weight of 100 rods, 500 pounds. Price, per rod.... **33c**

Harris Diamond Fencing

For Hogs and Stock



This fence is thoroughly practical and gives the very best of satisfaction and service. The diamond shaped meshes hold the running wires in place and prevent slipping and spreading. In fact, every wire in the fence is a brace and support to all other wires.

The running wires are drawn from high carbon hard steel and are provided with tension curves which contract and expand with the changes of temperature and keep the fence straight and tight at all times.

While this fence is not quite as heavy as some of our other styles, yet it is strong enough for all ordinary requirements and makes an excellent general purpose farm fence. It is portable and can be moved from place to place as often as desired.

The top and bottom wires are No. 11 gauge, intermediate wires No. 14 gauge, and the mesh wires No. 16 gauge. Meshes 6 inches apart. This is an excellent combination hog and stock fence, and can be used by stretching two or three wires of barbed wire above the fence.

2-Z-301. 22" high, weight 4 pounds.	30c
PER ROD	
2-Z-302. 27" high, weight 4½ pounds.	35c
PER ROD	
2-Z-303. 31" high, weight 5 pounds.	38c
PER ROD	
2-Z-300. 45" high, weight 6½ pounds.	50c
PER ROD	

HARRIS BROTHERS CO.
 35th and Iron Streets, Chicago.

26-INCH PERFECTION HOG FENCE (Extra Heavy)

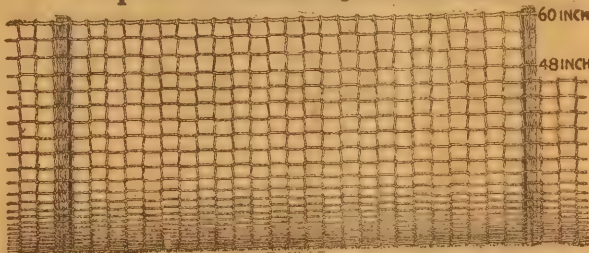
7 wires high. Barbed wire woven into bottom. Stays 6 inches apart. No. 10 gauge High Carbon Hard Steel Coiled Spring Wire at the top. No. 13 gauge intermediate line and stay wires. All wires drawn from Open Hearth Steel and heavily galvanized. Spaces between line wires, commencing at the bottom, are as follows: 3, 3, 4, 4½, 5½ and 6 inches. Approximate weight of 100 rods, 525 pounds. Shipped from factory near Chicago.

2-Z-112. 26-inch Perfection Hog Fence. Price, per rod..... **34c**
NOTICE—By using two or three strands of barbed wire above Perfection Hog Fence an excellent general purpose farm fence can be made and the cost is very low.

32-INCH PERFECTION HOG FENCE (Extra Heavy)

2-Z-121. Same as above, but 32 inches high. 8 wires high. Approximate weight of 100 rods, 600 pounds. Price, per rod.... **38c**

Superior Poultry Fencing



Poultry Fence. Suitable for enclosing poultry lots, gardens and young orchards. Neither the line nor stay wires can be slipped, and it is woven sufficiently close to turn all kinds of poultry and small animals. A practical and satisfactory combination poultry and stock fence. All wires are of high carbon steel, heavily galvanized.

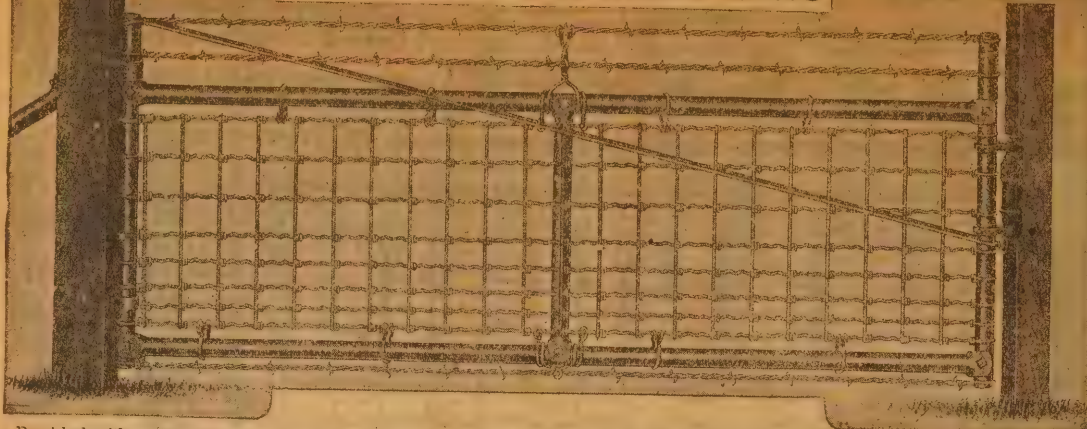
Our thirty-day trial fully protects you. You may erect the fence and if it is not satisfactory within 30 days, take it down, return it to us and we will pay freight on same and refund your money in full.

Put up in 10, 15, 20 rod rolls.

2-Z-16. 48" high (20 wires) stays 4½" apart, No. 14 gauge top and bottom wires, 18 gauge intermediate and stay wires, weight approximately 400 pounds per 100 rods. PER ROD.....	40c
2-Z-14. 48" high (17 wires) stays 6" apart, 10 gauge top and bottom wires, 14 gauge intermediate and stay wires, weight, approximately 825 pounds per 100 rods. PER ROD.....	56c
2-Z-17. 60" high (23 wires) stays 4½" apart, No. 14 gauge top and bottom wires, 18 gauge intermediate and stay wires, weight approximately 450 pounds per 100 rods. PER ROD.....	44c
2-Z-15. 60" high (19 wires) stays 6" apart, No. 10 gauge top and bottom wires, No. 14 gauge intermediate and stay wires, weight approximately 925 pounds per 100 rods. PER ROD.....	62c

Fence Posts? Our Special Steel Post Is Economical

Adjustable Painted Gate



DESCRIPTION
Height, 4 1/2 feet
framework, 2-inch
D. reclaimed bol
tubes; fencing,
9-1 inch galvaniz
three strands b
wire; stay or adj
ment wire, 9-gau
galvanized; hinge
heavy eyebolt, 1
inch shanks, threa
ed 9 inches; lat
either chain
double; paint, t
coats high-gra
grey enamel in
paint, brushed
adjustable to an
angle.

Furnished with eyebolt hinges
2-Z-217. Size, 54 inches high, 10 feet wide..... \$ 8.45
2-Z-218. Size, 54 inches high, 12 feet wide..... 9.20

With Double Latch
2-Z-227..... \$ 7.65
2-Z-228..... 8.50

Furnished with eyebolt hinges
2-Z-219. Size, 54 inches high, 14 feet wide..... \$ 9.90
2-Z-221. Size, 54 inches high, 16 feet wide..... 10.75

With Chain Lat
2-Z-229..... \$ 9.
2-Z-230..... 10.

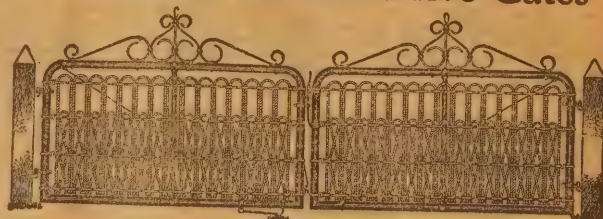
Ornamental Single Lawn Gates



The single lawn gates, we offer are made of heavy Merchant's pipe measuring 1 1/2 inches outside diameter and they are filled with Perfection Lawn Fence. These gates are strictly poultry-proof and very strong and durable. Each gate is fitted with good heavy hinges and an automatic latch. The frame is nicely painted with metallic paint to prevent rust. When these gates are ordered with Perfection Lawn Fence they should be specified three inches higher than the fence and the fence and gate will then match. Set posts 3 1/4 inches further apart than width of gate ordered.

	Width	Height	Ornamental	Plain
2-Z-405A.....	3 feet.....	27 or 38 inches.....	\$3.80.....	\$3.55.....
2-Z-406A.....	3 feet.....	39 or 45 inches.....	4.25.....	4.00.....
2-Z-407A.....	3 feet.....	51 or 54 inches.....	4.60.....	4.35.....
2-Z-408A.....	3 1/2 feet.....	27 or 38 inches.....	3.95.....	3.70.....
2-Z-409A.....	3 1/2 feet.....	39 or 45 inches.....	4.40.....	4.15.....
2-Z-410A.....	3 1/2 feet.....	51 or 54 inches.....	4.80.....	4.55.....

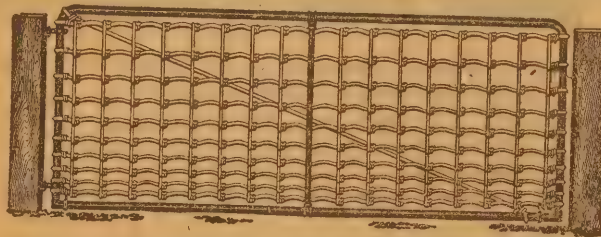
Ornamental Double Drive Gates



One side of the double gates is fitted with an automatic catch at the bottom so that it is possible to use just one-half of the gate as a single gate when so desired. Each of the two gates composing the double gate are braced diagonally with a heavy galvanizing wire and the 12 foot wide double gate is braced in the center of each gate with a 3/4-inch, upright pipe, making them very rigid and strong.

	Width	Height	Ornamental	Plain
2-Z-416A.....	10 feet.....	27 inches.....	\$ 9.95.....	\$ 9.70.....
2-Z-417A.....	10 feet.....	33 inches.....	9.85.....	9.7.....
2-Z-418A.....	10 feet.....	39 inches.....	11.00.....	10.75.....
2-Z-420A.....	10 feet.....	45 inches.....	11.00.....	10.75.....
2-Z-421A.....	12 feet.....	27 inches.....	11.85.....	11.60.....
2-Z-422A.....	12 feet.....	33 inches.....	11.65.....	11.40.....
2-Z-423A.....	12 feet.....	39 inches.....	11.65.....	11.40.....
2-Z-424A.....	12 feet.....	45 inches.....	12.90.....	12.6.....
2-Z-425A.....	12 feet.....	51 inches.....	13.95.....	13.70.....

Harris Driveway and Farm Gates



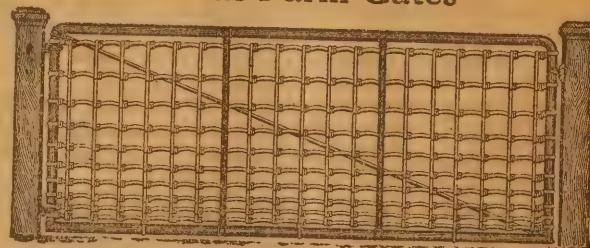
These gates add greatly to the beauty of the property they protect.

This gate is made of 1 1/2-inch outside diameter steel tubing, the upright brace in center is made of 3/4-inch tubing in 10 and 12 foot lengths, and two upright braces in 14 foot lengths. This prevents gate from spreading and makes them very rigid. In the construction of the frames of this gate, high carbon steel tubing is used.

We also place a No. 8 Galvanized Wire diagonally across the frame to strengthen it. Our "Harris" Farm Gate is furnished to you complete with hinges, latches and all necessary fittings to hang on wood posts ready for use. Hinges are adjustable and can be placed at any point on the gate, so that you can adjust them up or down, thereby allowing your gate to swing freely above ice or snow. Frame is covered with our Harris Square Mesh Fence as shown on preceding pages. All wires are heavily galvanized so as to prevent rust or corrosion.

2-Z-200.	54 inches high, 10 feet wide.	Price.....	\$ 8.45
2-Z-201.	54 inches high, 12 feet wide.	Price.....	9.50
2-Z-202.	54 inches high, 14 feet wide.	Price.....	10.25
2-Z-203.	54 inches high, 16 feet wide.	Price.....	11.75

Atlas Farm Gates



Our Atlas Farm Gate is one of the strongest, most durable and most serviceable gates on the market. They not only last a long time but also turn all kinds of stock. When durability, strength and satisfaction are taken into consideration, it is really the cheapest gate offered today. The frame is made of best quality wrought iron pipe, 1 1/2 inches outside diameter and the two upright braces are 1 1/2 inches. Pipe of the kind used is far more durable and strong than light weight steel tubing generally used. The frame is braced diagonally with a 3/4-inch steel rod, which effectually prevents sagging. The fabric filling is made of No. 9 galvanized wire and is close enough woven to turn anything from pigs, chickens, etc. The frame and braces are nicely painted black and each gate is fitted with a strong set of hinges and an automatic latch. Posts should be set 4 inches wider than gate ordered. Prices are F. O. B. factory in central Indiana.

No.	Width	Height	Weight	Price
2-Z-213.....	10 feet.....	54 inches.....	105 pounds.....	\$11.35
2-Z-214.....	12 feet.....	54 inches.....	120 pounds.....	13.00
2-Z-215.....	14 feet.....	54 inches.....	135 pounds.....	14.00
2-Z-216.....	16 feet.....	54 inches.....	150 pounds.....	15.00

HARRIS WOVEN WIRE LAWN FENCING

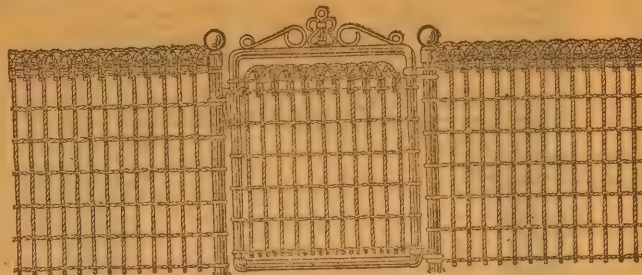
MADE OF HEAVY GALVANIZED WIRE

Harris Woven Wire Fencing is made of the best grade of galvanized wire. The design is plain and substantial as shown in the cut above. This is a fence that will be suitable in any surroundings, harmonizing well on any lawn. Can be used with either steel or wood posts.

Uprights are made of No. 9 heavy galvanized wire, crimped the entire length. Cabled line wires are of heavy galvanized wire, with stays between the uprights, 2½ inches. Cables are spaced 6 inches apart, except the top wire, which is spaced 2½ inches. We can furnish same to you in the following sizes:

To. 2-Z-428.	24 inches high.	Per lin. ft.....	10c
To. 2-Z-429.	30 inches high.	Per lin. ft.....	11c
To. 2-Z-430.	36 inches high.	Per lin. ft.....	12c
To. 2-Z-431.	42 inches high.	Per lin. ft.....	15c
To. 2-Z-432.	48 inches high.	Per lin. ft.....	17c

The above fencing can be furnished in any continuous length up to 300 feet.



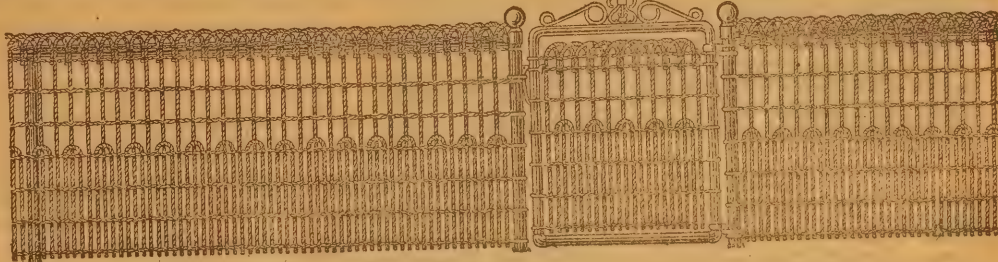
We can furnish gates for the above, same as listed under style A-100.

Harris Ornamental Lawn Fencing

This style, A-200, differs from our 429 in that we weave in an additional picket at the bottom, adding to the beauty of the design and also giving additional strength to the fence. It will stand use and abuse and the wear

of time to the limit of reasonable expectation. The space at the bottom closes to 1½ inches. Uprights, No. 9 galvanized wire, crimped the entire length; cables, No. 12½, heavily galvanized, with space between the uprights at the bottom of 1½ ins.; at the top, 2½ ins. The cables are spaced 6 ins. apart, except the top space of 2½ ins.

Height of fabric, inches.....	24	30	36	42	48	54	60
2-Z-404. Price, per lineal foot.....	15c	17c	18c	20c	23c	25c	30c



"Harris" Boulevard Complete Lawn Fence

We use our "Harris" Boulevard Lawn Fence for the filler in this beautiful Fence. The railing and posts are made of heavy Tubular Steel. The end, corner and gate posts measure 1½ inches in diameter. The Posts are fitted with beautiful cast iron bases at the bottom and are mounted on the top with beautiful white enameled ball-shaped ornaments. All fittings are highest grade malleable iron. Handsome 4-ply Braided-wire is stretched above the top railing, adding a neat and artistic finish to the Fence. Average weight of Fence, 8¾ pounds to the foot.



Lot No. 2-Z-8001.	30 in. Fence, 24 in. fabric.	Per ft.....	66c
Lot No. 2-Z-8002.	36 in. Fence, 30 in. fabric.	Per ft.....	70c
Lot No. 2-Z-8003.	42 in. Fence, 36 in. fabric.	Per ft.....	74c
Lot No. 2-Z-8004.	48 in. Fence, 42 in. fabric.	Per ft.....	81c
Lot No. 2-Z-8005.	54 in. Fence, 48 in. fabric.	Per ft.....	87c

Gates not included in Fence. See pages in this Catalogue for prices.

ORNAMENTAL LAWN GATES

The frame is made of 1½-in., full weight, stiff, high-carbon steel tubing, nicely painted. The gate is filled with our "Harris" Ornamental Lawn Fence fabric. All gates furnished complete with heavy malleable iron hinges for wood and a strong automatic latch of improved pattern. These gates can be used for any purpose where a walk gate is required. In ordering gates, be particular to state kind of fittings desired—whether for wooden or steel posts. All gates are made to fit openings. By openings we mean total distance between posts. In ordering ornamental gates, specify dimensions in the following rotation: height of gate, width of opening. Note the following prices:

If wanted for iron posts, give diameter of posts and add \$1.50 to prices of gate.

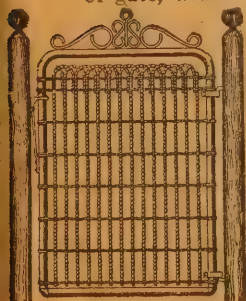
Single Gates—Up to and including 48 inches high

2-Z-405.	3 ft. opening.....	\$4.00	2-Z-411.	6 ft. opening.....	\$6.55
2-Z-406.	3½ ft. opening.....	4.40	2-Z-412.	7 ft. opening.....	7.25
2-Z-407.	4 ft. opening.....	4.65	2-Z-413.	8 ft. opening.....	8.40
2-Z-409.	5 ft. opening.....	6.00	2-Z-414.	10 ft. opening.....	10.15
			2-Z-415.	12 ft. opening.....	11.75

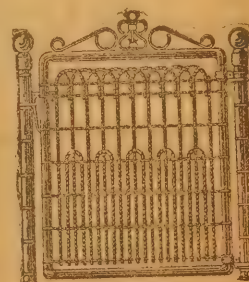
Double Gates—Up to and including 48 inches high

2-Z-416.	8 ft. opening.....	\$ 9.75	2-Z-419.	14 ft. opening.....	\$14.50
2-Z-417.	10 ft. opening.....	11.75	2-Z-420.	16 ft. opening.....	16.80
2-Z-418.	12 ft. opening.....	13.10			

Above ornamental lawn fence weighs from 2 to 5 lbs. per lineal foot, depending upon height and style of fence. Gates size 3x3 ft. weigh about 20 lbs. each. Gates with 10 to 12 foot openings weigh from 60 to 100 lbs., depending upon height and style.



Style A-100



Style A-200

HARRIS TWIN POST CEMETERY ARCH



Nothing can be more appropriate for a roadway into a Cemetery than one of our beautiful Arches with the name of the Cemetery in beautiful White Enameled letters printed across the top.

The "Harris" Twin-post Cemetery Arch is made up with two upright posts on each side, measuring $1\frac{3}{4}$ inches in diameter. These posts are placed 12 inches apart. The spaces between, divided into vertical sections by short pieces of pipe which act as braces to the posts. These vertical sections are filled with neat and attractive scroll work.

The "Top" of the "Harris" Arch is mounted with a beautiful scroll pattern and is filled with one of our most beautiful designs of Ornamental Wire Fabric. We also place in the corners beneath the top an elegant pattern of scroll work. Each post is fitted with a heavy cast iron base and neat white enameled Ornament on the top. We put the name of your Cemetery on the top of the Arch in beautiful White Enameled Letters, without additional cost.

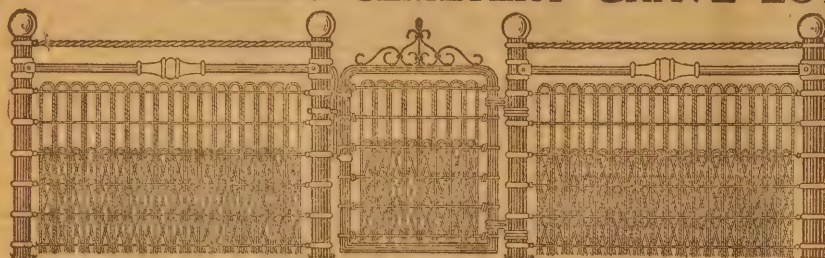
2-Z-9501.

Harris Twin Post Cemetery Arch.....

\$65.00

For \$20.00 additional, we will send an Arch with upright posts $2\frac{1}{2}$ in. in diameter. The price quoted is for driveway 8, 10 and 12 ft., but does not include the gates. For prices on Gates, see pages in this Catalogue.

HARRIS CEMETERY GRAVE LOT ENCLOSURE



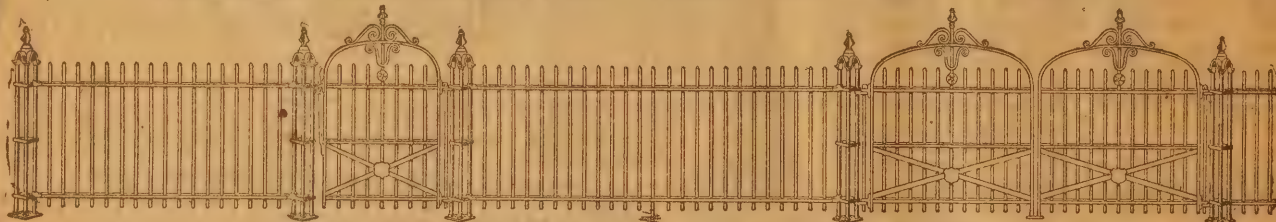
Beautify and protect your Burial Lot with Ideal Grave Lot Enclosure; regardless of whether or not the Cemetery is fenced. Adds wonderfully to the appearance of your burial lot and general surroundings.

We use the same posts, railing, fabric and fittings as described in our "Harris Premier" Ornamental Fence. This Fence is made in one height only, 36-inch, filled with a 39-inch fabric, making a very practical enclosure. The highest grade of galvanizing is used in the manufacture of this Fence—will outwear many of the higher priced fences. Prices below include one walk gate, 3 ft. wide.

Lot No. 2-Z-9121. 8x10 ft. enclosure, 36 in. high.....\$32.25
Lot No. 2-Z-9131. 8x15 ft. enclosure, 36 in. high.....40.00
Lot No. 2-Z-9161. 8x20 ft. enclosure, 36 in. high.....47.75

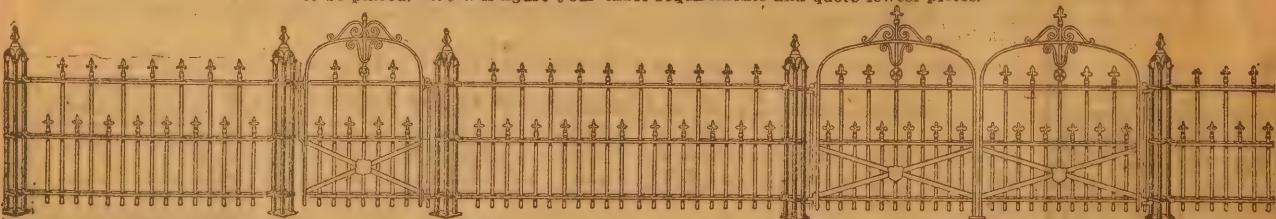
Lot No. 2-Z-9171. 10x12 ft. enclosure, 36 in. high.....\$38.50
Lot No. 2-Z-9181. 10x15 ft. enclosure, 36 in. high.....43.25
Lot No. 2-Z-9191. 20x20 ft. enclosure, 36 in. high.....66.50

HARRIS ORNAMENTAL WROUGHT IRON FENCE



	Picket	Spaced Apart	Size of Chan. Rail	Height	Price	Height	Price	Height	Price	Height	Price	Height	Price
2-Z-1062.....	$\frac{3}{8}$ In.	4 In.	$1\frac{1}{4} \times \frac{1}{2}$ In.	37 In.	.....	42 In.	.....	48 In.	.....	.....	.....	.....	.....
2-Z-1066.....	$\frac{1}{2}$ In.	4 In.	$1\frac{1}{4} \times \frac{1}{2}$ In.	37 In.	.....	42 In.	.....	48 In.	.....	.....	.....	.....	.....
2-Z-1068.....	$\frac{1}{2}$ In.	5 In.	$1\frac{1}{2} \times \frac{1}{2}$ In.	37 In.	.....	42 In.	.....	48 In.	.....	54 In.	.....	60 In.	.....
2-Z-1070.....	$\frac{3}{4}$ In.	5 In.	$1\frac{1}{2} \times \frac{1}{2}$ In.	37 In.	.....	42 In.	.....	48 In.	.....	54 In.	.....	60 In.	.....

Send diagram of space to be inclosed. Indicate where posts and gates are to be placed. We will figure your exact requirements and quote lowest prices.



	Size of Picket	Pickets Spaced	Size of Channel Rail	Height	Price	Height	Price	Height	Price
2-Z-1001.....	$\frac{3}{8}$ Inch	4 Inch	$1\frac{1}{4}$ Inch x $\frac{1}{2}$ Inch	37 Inch	.....	42 Inch	.....	48 Inch	.....
2-Z-1005.....	$\frac{1}{2}$ Inch	4 Inch	$1\frac{1}{4}$ Inch x $\frac{1}{2}$ Inch	37 Inch	.....	42 Inch	.....	48 Inch	.....

THE ABOVE PRICES ARE FOR A LINEAL FOOT, INCLUDING LINE POSTS.

2" CORNER, END AND GATE POSTS ARE EXTRA.

Extra for Corner, End and Gate Posts, 37 ins., 42 ins., 48 ins., 54 ins., 60 ins.

When figuring cost of Fencing, measure full opening, including Gates, Corner, End and Gate Posts, then add each for Single Gates, 3 ft. 2 in. wide, each for Double Gates, 8 ft. 2 in. wide, and extras for Posts as shown above.

THE PREMIER STUMP PULLER



**\$22⁰⁰ A LABOR SAVER and
AND UP MONEY MAKER**

**Powerful—Efficient
Low Priced Guaranteed**

MADE IN 5 SIZES

**Anchor and Pull Rope Furnished
We Do Not Furnish Sweep and Bed Pieces**

30 DAYS FREE TRIAL

Double-Tapered Grooved Drum. This is a perfect Drum, tapered so that the slack of the rope is quickly taken up on the smaller diameter, performing the double pull of increasing the power and speed of the machine at the same time. No other Puller has this feature. It is exclusively ours. It saves time and labor. It reduces the cost of clearing land to a minimum. The perfect spiral groove winds the rope like thread on a spool, preserving both its life and form. This in itself is an important feature, and one that every purchaser of a Stump Puller should consider carefully before buying. You will earn the price of our machine in twelve months the saving of rope alone, as compared with the wear and tear of rope on other kinds of Drums. Don't forget this point in buying a Stump Puller.

Main Frame is made to set on rough or level ground, on the hillside or swamp without danger of rolling or raising up under a heavy stump. Its rigidity is absolute. In moving from one anchor to another the machine is hitched to the frame, and the machine slides along on the ground like a sled.

Safety Drum Ratchet. On this machine the Safety Drum Ratchet performs the function of the Double Ratchet on other makes of machines. It is on the top of the upper flange of the Drum, out of the way of the winding rope, protected entirely by the Yoke, and is worked by an automatic Pawl, insuring perfect safety should anything give way about the harness, pulleys or sweep.

Sweep Lift is one of the most simple in construction of any device in use for throwing a machine in and out of gear. It is hung on a fork running down through the Sweep into the machine and resting in the axle of the Platform. A ring is provided to fit over the Sweep and a hand lever is reversed to raise and lower it in place in the Sweep-Case.

Take-Up. The Take-Up for slack rope enables one to make a hitch to a stump or tree any place on the rope, so that you can start the machine with an empty Drum. It is one of our own improvements.

2-Z-11401. This machine is suited for use by hand, or with one horse, and for pulling trees, stumps, grubs and brush up to 4" through. We offer it complete with 5-ft. Anchor Loop, 30-ft. of 1/2" Pull Rope, Automatic Ratchet-Pawl and Improved Sweep-Lift for throwing it in and out of gear. Shipping weight 175 lbs. Price.....\$22.00
Used with our No. 1 Snatch Block, double the power can be obtained. Extra.....\$4.00

2-Z-11402. This machine is suited for use with one horse on a 10-ft. sweep, and for pulling trees and stumps up to 6" and 8" through. We offer it complete with 5-ft. Anchor Loop, 40-ft. of 3/4" Pull Rope, Automatic Ratchet-Pawl and Improved Sweep-Lift for throwing it in and out of gear. Shipping weight 225 lbs. Price.....\$29.55
Used with our No. 2 Snatch Block, double the power can be obtained. Extra.....\$9.00

2-Z-11405. This machine is suited for use with one or two horses on a 16-ft. sweep, and for pulling trees and stumps up to 30" through. We offer it complete with 8-ft. Anchor Loop, 70-ft. of 1" Pull Rope, Automatic Ratchet-Pawl and Improved Sweep-Lift for throwing it in and out of gear. Shipping weight 550 lbs. Price.....\$78.25

All machines are shipped complete with everything ready for assembling, except the cross-poles and Sweep. For in our experience a Sweep and of sawed timber will not stand up under the strain of the machine. In fact, the best material for this purpose is available on every farm, and we save you the cost of something you already have plus the freight from factory.

The capacity of the machines as given above is based on the work of pulling green stumps, and as applied to the Nos. 3, 4 and 5 machines the use of the Snatch Block is necessary in all work over 10 and 12 inches through.

Printed instructions are sent with every machine, and these are so plain that you will have no trouble in getting started right.

Our Rope. We furnish the best grade of ENGLISH STEEL ROPE, with every machine. This rope is made especially for use on Stump Pullers, combining toughness, elasticity and flexibility. All ropes are rigged so they can be instantly attached to the Drum, or taken off to be coiled up and housed when not in use, and are fitted with a Rope Hook on the pull end. The Anchor Loops are fastened with a Rope Coupler, making a perfect and everlasting fastening.

The ropes furnished with our machine are in those exact lengths that we have found from actual practice and experience are best suited for clearing land with the greatest speed and at the lowest cost per acre. We can, however, furnish rope in any length or size customer desires.

When extra lengths of rope are required for heavy or scattering stumps or trees, we advise that it be ordered in short pieces of twenty-five feet, fifty feet or seventy-five feet, fitted with our Patent Rope and Loop Couplers, enabling one to speedily connect the ropes or disconnect them, as distance requires.

Capacity. One of the important things for every purchaser of a Stump Puller to consider is capacity. Soil conditions vary with the season. Especially in this time of dry times, when the ground is baked like brick, or of wet times when the ground is loose. The capacity of our machines are based on normal conditions, in all kinds of timber. We urgently advise the purchaser to get a machine large enough, and at the prices we are giving you today, you can easily afford to do this.

The Question of Material. This is a matter of secondary consideration, although important. In this machine the different parts are proportioned to equalize the strain, and the material used is selected with a care to give it a breaking strength double that of the rope used. This not only insures sufficient strength in the machine itself, but serves to take care of any sudden stress that may occur.

Our Guarantee. In strength, capacity, lightness in weight, ease of operation and economy in the cost of clearing land, we will guarantee this machine to have a distinct advantage over any other make of Grooved Drum Stump Puller on the market, and at one-half the price of the so-called "all steel machines." We guarantee our machines for three years, and will replace absolutely free any part of our machine broken because of defective material during that time.

2-Z-11403. This machine is suited for use with one or two horses on a 12-ft. Sweep, and for pulling trees and stumps up to 16" and 18" through. We offer it complete with 6-ft. Anchor Loop, 50-ft. of 3/4" Pull Rope, Automatic Ratchet-Pawl and Improved Sweep-Lift for throwing it in and out of gear. Shipping weight 350 lbs. Price.....\$43.55
Used with our No. 2 Snatch Block, double the power can be obtained. Extra.....\$19.00

2-Z-11404. This machine is suited for use with one or two horses on a 14-ft. Sweep, and for pulling trees and stumps up to 24" through. Complete with 8-ft. Anchor Loop and 60-ft. of 3/4" Pull Rope, Automatic Ratchet-Pawl and Improved Sweep-Lift for throwing it in and out of gear. Shipping weight 425 lbs. Price.....\$56.00
Used with our No. 3 Snatch Block, double the power can be obtained. Extra.....\$25.00

2-Z-11405. This machine is suited for use with one or two horses on a 16-ft. Sweep, and for pulling trees and stumps up to 30" through. We offer it complete with 8-ft. Anchor Loop, 70-ft. of 1" Pull Rope, Automatic Ratchet-Pawl and Improved Sweep-Lift for throwing it in and out of gear. Shipping weight 550 lbs. Price.....\$78.25

ATTACHMENTS FOR PREMIER STUMP PULLERS

Steel Wire Rope

2-Z-11413. Steel Wire Rope. Price of rope does not include fittings. We make no extra charge for attaching fittings when ordered with rope. This rope is of the best quality steel, noted for its strength and durability, and will prove satisfactory in every respect.

1/2 inch.	Price, per foot.....	15c
3/4 inch.	Price, per foot.....	21c
1 inch.	Price, per foot.....	30c
1 1/4 inch.	Price, per foot.....	38c
1 1/2 inch.	Price, per foot.....	54c

Larger dimensions quoted on application.

Rope Hook & Loop Coupler

2-Z-11455. Rope Hook and Loop Coupler. Illustration shows Rope Hook on end of one Rope and Loop Coupler on end of other Rope. Can be used in connection with each other or separately. The handiest and most durable device for connecting ropes.

Prices are for set, consisting of Hook and Coupler	
For 1/2 inch rope, each.....	\$2.80
For 3/4 inch rope, each.....	3.40
For 1 inch rope, each.....	3.94
For 1 1/4 inch rope, each.....	4.50
For 1 1/2 inch rope, each.....	5.64

2-Z-11419—Snatch Blocks

No. 1. For use with rope up to 5/8-inch diameter. Complete with 10-foot, 3/4-inch Hitch Rope, wt. 50 lbs. \$14.00
No. 2. For use with rope up to 3/4-inch diameter. Complete with 10-foot, 3/4-inch Hitch Rope, weight 70 lbs. \$19.00
No. 3. For use with rope up to 1-inch diameter. Complete with 15-foot, 3/4-inch Hitch Rope, weight 90 lbs. \$25.00
No. 4. For use with rope up to 1-inch diameter. Complete with 15-foot, 1-inch Hitch Rope, weight 120 lbs. \$30.00

Root Hooks
2-Z-11431. Root hooks (Steel). Made in two sizes of best material. A hook that will give the best of service and satisfaction.
No. 1 Root Hook, weight, 30 lbs. Price.....\$3.45
No. 2 Root Hook, weight, 45 lbs. Price.....\$11.25

Twin Root Hook

2-Z-11437. Twin Root Hook. Made for use in dense undergrowth, such as mesquite, sage brush, willow bunches, etc. Is adapted for use with any size machine. Made of cast steel. Handles enable operator to guide hook without danger of injury. Weight, 80 lbs. Price.....\$22.50

Rope Shorteners

2-Z-11425. Rope Shorteners. For use where long Drum Rope is used for making hitch to stump at any point in the rope, avoiding winding of slack rope on drum. No. 1 Rope Shortener, for use with rope up to 3/4 inch diameter. Price.....\$3.95
No. 2 Rope Shortener, for use with rope up to 1 inch diameter. Price.....\$5.60
No. 3 Rope Shortener, for use with rope up to 1 1/2 inch diameter. Price.....\$6.75

Anchor Ropes

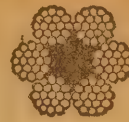
2-Z-11439. Patent Anchor Ropes. With this attachment the machine can be anchored any place, to the ground, to a tree or to a stump, allowing the sweep to pass between the machine and anchorage. Made of best steel wire rope, fitted with rope hooks and loop coupler, and if desired can be used for lengthening the pull rope. One of the latest improvements on stump pullers made. Each rope 25 feet long.

Prices of Anchor Ropes

25-foot, 3/4-inch Anchor Rope, weight, 30 lbs.....	\$ 8.70
25-foot, 3/4-inch Anchor Rope, weight, 45 lbs.....	11.25
25-foot, 1-inch Anchor Rope, weight, 55 lbs.....	14.10
25-foot, 1-inch Anchor Rope, weight, 75 lbs.....	17.50

STEEL CABLE AND ROPE

Brand New Standard Wire Hoisting Rope



Made up of six strands, 19 wires to the strand, laid around a hemp center.
SWEDISH IRON ROPE. Is used for hay presses, hoisting and all general purposes.
CRUCIBLE STEEL ROPE. Is much stronger and is used in mines, on derricks and for any kind of hoisting work where a strong rope is required, and its use is urged on any job where lives may be placed in jeopardy by the use of rope not suited for the purpose. Subject to quantity on hand.

2-Z-11601. Swedish Iron Rope.

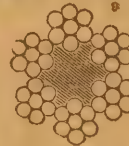
Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2,000 lbs.	Price per ft. per ft.
1/4	0.10	1.10	\$0.08
5/16	0.22	2.4	.09
3/8	0.39	3.9	.10
7/16	0.62	6	.14
1/2	0.89	8.5	.19
5/8	1.20	11.8	.24
3/4	1.58	14.5	.31
7/8	2.00	18.6	.40

2-Z-11603. Crucible Steel Wire Rope.

Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2,000 lbs.	Price per ft. per ft.
1/4	0.10	2.2	\$0.10
5/16	0.22	4.8	.11
3/8	0.39	8.4	.12 1/2
7/16	0.62	12.5	.16
1/2	0.89	17.5	.21
5/8	1.20	23	.26
3/4	1.58	30	.34
7/8	2	38	.41

Brand New Swedish Transmission or Haulage Rope

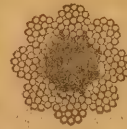
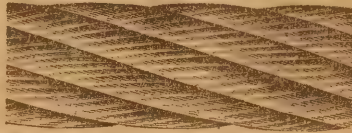
2-Z-11605. Composed of six strands, hemp center, each having 7 wires. This rope is used principally for transmission of power over large sheaves or drums. This rope is not flexible enough to be used over small sheaves or drums. Note minimum diameter of drum or sheave in table below. Subject to quantity on hand.



Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2,000 lbs.	Minimum diam. of drum or sheave in feet	Price per ft. per ft.
3/8	0.22	4.8	2 1/2	\$0.06 1/2
1/2	0.39	8.4	3 1/2	.08
5/8	0.62	13.2	4 1/2	.12
3/4	0.89	18.6	6	.17
7/8	1.20	24	7	.22
1	1.58	32	8	.27

Extra Flexible Wire Rope

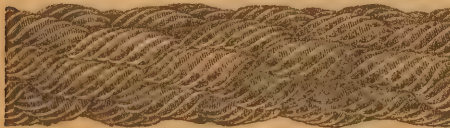
2-Z-11607. Brand new. Composed of 8 strands and a hemp center, each strand having 19 wires. This rope has two more strands and smaller wires than the regular 6 strand rope, and is especially adapted for running over comparatively small sheaves on derricks, coal handling machinery, cargo hoisting, pile drivers, logging purposes and transmission of power.



On account of the somewhat larger hemp center, the strength is less than that of the regular 6 strand rope, but under many conditions where extreme pliability is required, this extra flexible rope, owing to its ability to withstand severe bending, retains its strength longer than the stiffer 6 strand rope. Subject to quantity on hand.

Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2,000 lbs.	Minimum diam. of drum or sheave in inches	Price per ft. per ft.
3/8	0.19	3.3	6	\$0.12
1/2	0.31	6.6	6	.13 1/2
5/8	0.53	11.6	8	.18
3/4	0.89	16.5	14	.23
7/8	1.05	21	14	.30
1	1.32	27	18	.37

Brand New Hawser Laid Manila Drilling Rope



2-Z-11609. The Hawser Laid Manila Rope is used generally for well drilling purposes, and it is very necessary that rope used for this purpose be well made and of the very best quality, pure, long fibre manila. We offer this rope as the very best quality manufactured. It is made of the best grade of manila fibre. Nothing but the best fibre is used. It is laid up by experienced rope makers in a compound that lubricates and protects it from water and weather.

Size Inches	Price per ft. per ft.	Size Inches	Price per ft. per ft.	Size Inches	Price per ft. per ft.
1/2	\$0.09	1 1/2	\$0.22	1 1/2	\$0.35
3/4	.13 1/2	1 1/4	.27	1 1/4	.54
1	.16	1 3/8	.30 1/2	2	.63



Galvanized Steel Wire Strand

Brand New



2-Z-11611. This strand is composed of wires, twisted into a single strand. Is used for guys on smoke stacks, telegraph and telephone poles and many other purposes.

Diam. Inches	Approx. strength in lbs.	Weight per 100 ft. lbs.	Price per 100 ft.
1/4	2300	13	\$1.75
3/8	5000	30	3.50
1/2	8500	62	5.50

Galvanized Iron Wire Rope

Brand New



2-Z-11613. For derrick guys, etc. Not suitable to run over drums or sheaves. Composed of 6 strands and hemp center, wires to the strand.

Diam. Inches	Weight per ft. in lbs.	Approx. breaking strain in tons of 2,000 lbs.	Price per ft. per ft.
3/8	0.20	1.8	\$0.0
1/2	0.36	3.2	.0
5/8	0.64	5.8	.1
3/4	0.81	7.3	.1
7/8	1.21	11	.2
1	1.44	13	.2

Iron Sheaves for Wire Rope

Deep Grooves, Common Iron Bushed, Brand New



2-Z-8999. These sheaves as priced below are to run loose on the shaft. We cannot furnish them bored for larger size shaft than specified nor can they be fitted with set screws or keys.

Diam. Sheave Inches	Length Through Hub Inches	Size of Hole for Shaft Inches	For Diam. Wire Rope Inches	Price Each
5	7/8	5/8	3/4	\$0.7
6	1	3/4	1	1.1
6	1 1/8	3/4	1 1/8	1.1
8	1 1/8	1	1 1/8	2.4
8	1 1/2	1	1 1/2	2.4
10	1 1/2	1 1/8	1 1/2	2.2
10	1 3/4	1 1/8	1 3/4	3.9
12	1 3/4	1 1/2	1 3/4	4.5
12	1 3/4	1 1/2	1 3/4	4.5
14	1 3/4	1 3/4	1 3/4	6.3
14	2	1 3/4	1 3/4	7.1
14	1 3/4	1 3/4	1 3/4	6.3

Guaranteed Pure Manila New Rope

Made of selected Long Pure Manila fiber. Our rope is not mixed with sisal or any other cheaper fibers, but is guaranteed to be strictly pure long manila fiber of the very best quality. Prices on manila rope subject to change. We furnish this rope in connection with Hay Carrier outfits, which are described on page 185. The 3/4-inch is used for the Trip and the 1/2-inch is generally used for the Carrier, although in connection with our outfits either the 3/4-inch or the 1-inch rope can be used.

Size, inches	Price, per foot	Size, inches	Price, per foot	Size, inches	Price, per foot
1/4	1/4c	1 1/2	1 1/4c	1 1/2	1 1/4c
3/8	1 1/2c	1 3/4	1 1/4c	1 3/4	1 1/4c
1/2	1 1/4c	1 3/8	1 1/4c	1 3/8	1 1/4c
3/4	1 1/4c	1 3/4	1 1/4c	1 3/4	1 1/4c
1	1 1/4c	1 3/4	1 1/4c	1 3/4	1 1/4c

HARRIS BROTHERS CO.
 35th and Iron Streets, Chicago.

IRON PIPE ROLLERS.

6-Z-11501. Made of Heavy Tubing.

Approx. Wt. per ft.	Price	Outside Diam.	Approx. Wt. per ft.	Price
2 1/2	\$0.12	5	13	\$0.52
3 1/2	.14	5 1/2	15	.60
4 1/2	.23	6 1/2	19	.76
5 1/2	.30	7 1/2	24	.96
6 1/2	.36	8 1/2	29	1.16
10 1/2	.45			

WIRE ROPE CLIPS.

Brand New.

2-Z-11503. These clips are used to make top of an eye at the end of a rope without cing.

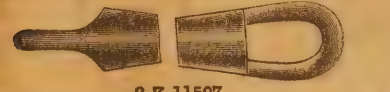
Size for Rope Diam. Inches	Price Each
3/4	\$0.06
1	.08
1 1/4	.12
1 1/2	.17
1 3/4	.24
2	.33
2 1/4	.39
2 1/2	.66
2 3/4	.72
3	1.00
3 1/2	1.20

WIRE ROPE CLAMPS.

2-Z-11505. For Bridges and Cable Ways.

Size for Rope Diam. Inches	Price Each
1	\$0.50
1 1/4	.60
1 1/2	.70
1 3/4	.80
2	.90
2 1/4	1.10
2 1/2	1.50
2 3/4	2.65
3	3.60

WIRE ROPE SOCKETS—Closed Pattern.



Size for Rope Diam. Inches	Price Each
1	\$1.75
1 1/4	2.15
1 1/2	2.65
1 3/4	3.30

WIRE ROPE SOCKET WITH HOOK.



Size for Rope Diam. Inches	Price Each
1	\$2.45
1 1/4	3.30
1 1/2	4.00
1 3/4	5.95

WIRE ROPE THIMBLES.

Size for Rope Diam. Inches	Price Each
1/4	\$0.06
3/8	.07
1/2	.08
5/8	.10
3/4	.11
7/8	.17
1	.22
1 1/4	.42
1 1/2	.50
1 3/4	.63
2	.75

PATENT WIRE ROPE HOOKS AND COUPLINGS.

These hooks are made of malleable iron and can be bent cold. The cheapest and simplest fastening for rope manufactured.

Size	Price
3/4" 1/2" 5/8"	30c 35c 45c
Fig. 5, Ring	30c 35c 45c
Fig. 6, Coupling	30c 35c 45c

HARRIS BROTHERS CO. 15th and Iron Streets, Chicago.

TURNBUCKLES



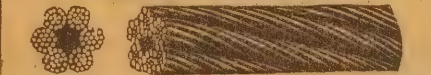
These Turnbuckles are considered the best on the market. Are made of wrought iron, painted black. We have them in stock and can furnish promptly.

Diameter of Thread	Length of Thread	Price Each Black	Price Each Galvanized
2-Z-11547	3 1/2	\$0.45	\$0.57
2-Z-11548	4	.48	.60
2-Z-11549	4 1/4	.50	.65
2-Z-11550	4 1/2	.72	.90
2-Z-11551	5 1/4	.85	1.10
2-Z-11552	6	.95	1.20
2-Z-11553	9	1.40	1.75
2-Z-11554	12	1.90	2.40
2-Z-11555	12	3.25	4.05
2-Z-11556	12	4.00	5.00

Write for prices on larger sizes.

USED WIRE ROPE FOR HOISING.

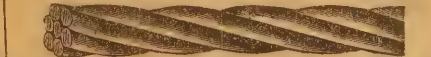
Nineteen Wires to the Strand. Six Strands. Laid Around Hemp Center.



2-Z-11525. This rope is particularly adapted for service in mines, for logging on elevators, derricks, hay presses and hoists of all kinds.

Diam. Inches	Weight per ft. in pounds	Price per ft. Selected Second Hand Rope
1/2	0.39	\$0.04
5/8	0.62	.06
3/4	0.89	.09
7/8	1.20	.12
1	1.58	.16
1 1/4	2.45	.20

USED GALVANIZED WIRE STRAND



2-Z-11527. This Strand is composed of seven steel wires, twisted into a single strand. For Smoke Stack Guys, Electric Light Plants, Street Railways, Signal Cord, Fencing, etc.

Approx. Diam. In.	Price per 100 ft.
3/4	\$1.50
1/2	1.75

USED WIRE ROPE

2-Z-11531. 15,000 feet of 5/8 inch Crucible Steel Wire Rope, composed of six strands, 19 wires to the strand. This rope comes in short lengths, ranging from 30 to 100 feet. It is in good, fair second hand condition, but is too short to splice profitably. It is suitable for logging, hoisting and for almost any purpose for which wire rope is generally used.

We offer it at this special price only in lengths as we may have in stock. Price, per foot. 4c 2-Z-11533. 30,000 feet of 5/8 inch second hand Wire Rope, composed of six strands, 19 wires to the strand in lengths ranging from 30 to 100 feet. This rope is somewhat worn, having here and there a broken wire. It is not recommended for hoisting, but can be used for many other purposes such as logging, fencing, etc.

This rope we offer in such lengths as we have in our stock. Price, per foot. 3c 2-Z-11535. 20,000 feet of 5/8 inch Crucible Steel Wire Cable, composed of six strands, 19 wires to the strand. Is in good second hand condition, but in view of the fact it is in short lengths, ranging from 30 to 125 feet, we offer it at special price, only in such lengths as we have in our stock.

Price, per foot. 7c 2-Z-11537. 15,000 feet of 3/4 inch second hand Cable, composed of six strands, 19 wires to the strand, in lengths ranging from 30 to 100 feet. This Cable is somewhat worn, having here and there a broken wire. It is not recommended for hoisting, but can be used for many other purposes, such as logging, fencing, etc.

This cable we offer in such lengths as we have in our stock. Price, per foot. 5c 2-Z-11539. 85,000 feet of 1 1/4 inch second hand Crucible Steel Cable, composed of six strands, 7 wires to the strand. This cable is in good second hand condition and runs in lengths up to 1,000 feet. Price, per foot in lengths. 25c

JACK SCREWS

4-Z-11519. The Bell Base of these Jack Screws is made of the toughest gray iron it is possible to obtain. The screws are wrought iron, lathe turned. Every jack is tested and its carrying capacity is fully guaranteed. Levers are not furnished with the Jacks.

Diam. of Screw in.	Height of Stand over all in.	Lifting Capacity Tons	Price Each
1 1/4	8	10	\$2.80
1 1/2	12	14	3.45
1 3/4	8	10	3.50
1 1/2	10	12	4.90
1 3/4	12	14	4.35
1 1/2	10	13	4.70
1 3/4	12	15	5.15
2	10	13 1/4	5.60
2	12	15 1/4	6.20
2	14	17 1/4	6.80
2	16	19 1/4	7.60
2 1/2	14	18	9.90
2 1/2	18	22	14.00
2 1/2	20	24	15.00

"PREMIER" RATCHET JACKS

4-Z-11521. Easily operated and can be used in close places. The stand of this Jack is made of tough gray iron and the screw is made of special steel with deep lathe cut thread. Diameter of Screw... 2 inches Height over all... 23 inches Lifting capacity... 25 tons Price, each... \$6.75



HOUSE RAISING JACKS

4-Z-11523. Cast Iron—Brand New.

These Screws are cast with Seamless Threads which makes them very smooth and uniform.

Diam. of Screw in.	Height Over All in.	Price Each
3	18	\$4.30
3	20	4.70
3	24	5.35
3	30	6.30
3	36	7.35

USED HOUSE RAISING JACKS

300 used jacks practically as good as new. While they last. 4-Z-11524. Size 3x24 only. \$3.00 Each

USED MANILA ROPE

Subject to Stock on Hand



2-Z-11543. Carefully selected and in good second hand condition. We generally have on hand a fair range of lengths offered. However, we offer this rope subject to stock on hand at time of receiving order, and in sending in your order it is advisable to state whether or not it will be satisfactory that we furnish new rope should we not have the second hand material at that time.

Diam. in.	Price per ft.	Diam. in.	Price per ft.
1 1/2	2 1/2c	1 1/2	6c
3/4	4c	1 1/4	7c
1	5c	1 1/2	10c

WRITE FOR PRICES

ON ALL WIRE ROPE PARTS YOU NEED

Let us Quote You on a Heating Plant for Your Home

BLOCK AND TACKLE

IRON STRAPPED WOOD SHELL TACKLE BLOCKS.



BECKET

These blocks are of the best possible construction. Have special chilled steel pins and iron sheaves with edges properly rounded to prevent the rope from fraying. We can furnish these blocks either with or without becket. Illustration of double block shows becket. When used in pairs, one should be plain and the other with becket. When becket is required, be sure to order accordingly. Price of blocks with or without the becket is the same.

These blocks are to be used only for manila rope. You cannot use wire rope or chain in connection with these blocks.

2-Z-11701. Without becket.

2-Z-11702. With becket.

Diam. Rope Inches	Length of Shell	Single Pulley	Double Pulley	Triple Pulley
3/8	3"	\$0.70	\$1.30	\$1.75
1/2	4"	.85	1.60	2.15
5/8	5"	.90	1.75	2.25
3/4	6"	1.10	2.00	2.50
7/8	7"	1.30	2.40	3.50
1	8"	1.65	2.85	4.25
1 1/8	10"	3.00	5.00	7.00
1 1/4	12"	5.00	8.25	11.75
1 3/8	14"	8.00	11.50	16.50
1 1/2	15"	9.00	14.50	20.00

STANDARD STEEL TACKLE BLOCKS.

For Manila Rope.

Single Double Triple



These are lighter than wood blocks and equally as strong. Are made with forged steel hooks, straps, pins and shells. Straps extend full length of shell, giving strength and rigidity to the blocks and furnishing proper support for becket. Shells have nicely rounded edges to protect rope. These blocks are intended for use with manila rope only. You cannot use wire rope or chain.

2-Z-11704. Without becket.

2-Z-11705. With becket.

Diam. Rope Inches	Length of Shell	Single Pulley	Double Pulley	Triple Pulley
3/8	3"	\$0.70	\$1.35	\$1.75
1/2	4"	.85	1.60	2.15
5/8	5"	.90	1.75	2.25
3/4	6"	1.10	2.00	2.50
7/8	7"	1.30	2.40	3.50
1	8"	1.65	2.85	4.25
1 1/8	10"	3.00	5.00	7.00
1 1/4	12"	5.00	8.25	12.00

STANDARD WOOD SHELL IRON STRAPPED SNATCH BLOCKS.

2-Z-11707.

Size of Sheave	Diam. Rope Inches	Length of Shell Inches	Price Each
3 x 1 1/4	3/8	6	\$5.00
3 1/2 x 1 1/4	1/2	7	3.50
4 1/2 x 1 1/4	5/8	8	4.35
5 x 1 1/4	3/4	9	5.10
5 1/2 x 1 1/4	7/8	10	6.40
6 x 2 1/4	1	12	7.50
8 x 2 1/4	1 1/8	14	9.75
9 x 2 1/2	1 1/4	16	12.75

STEEL SNATCH BLOCKS.

2-Z-11709. These blocks are much stronger than other metal and wood shell blocks, and they are practically indestructible. The shell is made of special wrought steel, edges nicely rounded to prevent the rope from wearing, and will outlast the cheaper metal blocks. The steel block we can recommend for the heaviest work.

Can not be used with wire rope or chain.

Size of Sheave Inches	Diam. Rope Inches	Length of Shell Inches	Price Each
3 x 1 1/4	3/8	6	\$4.40
3 1/2 x 1 1/4	1/2	7	5.25
4 1/2 x 1 1/4	5/8	8	6.25
5 x 1 1/4	3/4	9	7.50
5 1/2 x 1 1/4	7/8	10	9.25
6 x 2 1/4	1	12	11.00
8 x 2 1/4	1 1/8	14	14.50
9 x 2 1/2	1 1/4	16	19.00

Prices on this page subject to market changes.

WIRE ROPE BLOCKS.

2-Z-11711. These blocks are specially designed to be used in connection with wire hoisting rope, having large sheaves.

You cannot use the wood and iron shell manila rope tackle blocks in connection with the wire rope owing to the fact that the sheaves are too small to permit the wire rope running freely over them.

Diam. of Shv.	For Rope In.	Single Price Each	Double Price Each	Triple Price Each
10"	less	\$10.00	\$15.00	\$20.00
14"	3/4	14.00	19.00	26.00
16"	7/8	16.00	22.00	30.00



WESTON DIFFERENTIAL CHAIN HOIST.

2-Z-11783. Tested to full weight before shipment. This is the simplest and cheapest type of chain hoist, and has the fewest parts of any hoist made. The chains are specially made, are finely finished and carefully hardened to prevent wear. This hoist will hold a load at any point. Each hoist is guaranteed fully in every particular.



Four feet of extra Chain required for every foot of extra lift.

IMPROVED SCREW CHAIN HOIST.

2-Z-11715. These hoists are powerful and compact. They are extensively used for all classes of work. They are much easier to operate than the Differential Hoist, inasmuch as they are geared up. The gearing is enclosed in oil tight housing and the working parts are thus always immersed in oil, insuring smooth action and thorough lubrication.

Capacity Tons	Weight lbs.	Lift feet	Price Complete
1 1/2	50	8	\$38.50
1	60	8	46.00
1 1/2	76	8	61.50
2	125	9	76.95
3	190	10	115.00
4	210	10	146.00

The Fastest Chain Hoist Made

Special Prices on Sizes up to 10 Tons



BURR STEEL SAFETY LIFTS.

These lifts are thoroughly practical and are much less expensive than the chain hoists. Are used largely by contractors, bridge builders, grocers, farmers, in fact can be used anywhere it is necessary to raise heavy weights. These lifts are made of the highest quality of steel and are practically indestructible. They have no wedge, eccentric springs or teeth that will get out of order. The brake against which the rope is locked is smooth and therefore cannot injure the rope.

These lifts are designed to be used in connection with manila rope only. Prices quoted do not include the rope.

2-Z-11717. Size No. 3, for 3/4 inch rope. One man can hoist 300 lbs. Double lower block, weight 4 1/2 lbs. Capacity 800 lbs. Price, \$1.70

2-Z-11719. Size No. 4, for 1 inch rope. One man can hoist 350 lbs. Double lower block, weight 6 1/2 lbs. Capacity 1,500 lbs. Price \$3.15

2-Z-11721. Size No. 5, for 1 1/4 inch rope. One man can hoist 400 lbs. Double lower block, weight 11 lbs. Capacity 2,000 lbs. Price \$4.00

2-Z-11723. Size No. 6, for 1 1/2 inch rope. One man can hoist 450 lbs. Double lower block, weight 17 lbs. Capacity 2,500 lbs. Price \$4.50

2-Z-11725. Size No. 4 1/2, for 1 1/4 inch rope. One man can hoist 600 lbs. Triple lower block, weight 10 lbs. Capacity 3,000 lbs. Price \$5.00

2-Z-11727. Size No. 5 1/2, for 1 1/2 inch rope. One man can hoist 700 lbs. Triple lower block, weight 20 lbs. Capacity 3,500 lbs. Price \$6.00

2-Z-11729. Size No. 6 1/2, for 1 3/4 inch rope. One man can hoist 850 lbs. Triple lower block, weight 23 lbs. Capacity 5,000 lbs. Price \$7.00

PLAIN "T" BEAM TROLLEY



A simple and practical "T" Beam Trolley with steel side plates, anti-friction bearings adjustable to three sizes of Beams. Can be put track from side of beam if desired.

Lot No.	Capacity in Tons	Sizes of I-Beams	Weight Pounds	Price
2-Z-11559	1/2	5-6-7	25	\$29.
2-Z-11560	1	6-7-8	40	31.
2-Z-11561	1 1/2	7-8-9	80	37.
2-Z-11562	2	8-9-10	130	41.
2-Z-11563	3	9-10-12	135	49.
2-Z-11564	4	10-12-15	140	54.
2-Z-11565	5	12-15-18	310	63.

HARD MAPLE ROLLERS.

4-Z-11731. For House and Machine Moving. These rollers are turned from a seasoned, quarter-sawn rock maple square. They are free from hearts. Only the best and toughest part of the log being used. The rollers are treated with boiled linseed oil and ends are painted before shipment.

Guaranteed to be the best possible to produce.

Diam. Inches	Length Feet	Diam. Inches	Length Feet
3	3	6	4
3 1/2	4	6 1/2	4 1/2
4	3	6 1/2	5
4 1/2	3	6 1/2	6
4 1/2	5	7	3
5	3	7	4
5 1/2	4	7 1/2	4 1/2
5 1/2	5	7 1/2	5
5 1/2	6	7 1/2	6
6	3	7 1/2	7

IMPROVED FARM IMPLEMENTS PRICED VERY LOW!!



**Harris Leader
Fanning Mill**

\$28⁰⁰

Standard Type Fanning Mill with all new improved features of construction quick show movement, large screening surface. Two spouts attached to the show, one being the grader and the other arranged so that all grain which passes over the lower screen may be directed to the opposite side of crank. Furnished with one wheat or rye hurdle, one corn or oats sieve, one bran or barley sieve, one wheat roller, two wheat or barley screens, one pair of blinds and one cockle board. When ordered from the following list, simply specify the mill you wish, and your machine will be properly fitted with the necessary attachments to do exact work. The sieve is 22½" wide; capacity 80 bushels per hour.

- 16-Z-8620. Fanning Mill for grading and cleaning grains, weight 120 lbs. Price... \$28.00
- 16-Z-8621. Fanning Mill for grading and cleaning grains and flax, weight 125 lbs. Price... \$30.65
- 16-Z-8622. Fanning Mill for grading and cleaning grains, clover and timothy, weight 125 lbs. Price... \$32.00
- 16-Z-8623. Fanning Mill for grading and cleaning grains, clover, timothy and flax, weight 125 lbs. Price... \$33.35
- 16-Z-8624. Bagging Attachment for any of above mills... \$13.35
- 16-Z-8625. Corn grading attachment for any of the above mills... \$3.50

**Harris Leader Square End
One Hole Corn Sheller**



\$10⁵⁰

**Efficient
and
Durable**

16-Z-8067. An excellent Corn Sheller with strong hardwood frame. Shaft made of cold rolled steel and all parts properly proportioned. Gearing on outside of frame will not clog; protected by hood to avoid accidents; heavy balance wheel; geared low for easy operation. Good sized feed table. Feed spout placed over two shelling wheels which grip the ears firmly. Adjusted to shell any kind of grain perfectly. When fitted with fan this machine will clean corn nicely. If you intend to run your sheller by power, we furnish a clamp pulley to attach to balance wheel. Weight, 110 lbs. Price without fan or feed table; \$10.50 otherwise complete.

- 16-Z-8065. Sheller complete with fan, feed table, crank and balance wheel... \$12.25
- Pulley for power, 8 inches in diameter, 2-inch face... \$1.10

Harris Cob Crushers and Feed Grinders



\$22⁷⁵

16-Z-7200. Made in two sizes, built entirely of steel and iron. Will grind ear corn, shelled corn, barley, rye, oats and any kind of grain separately or mixed. Burrs easily regulated for coarse or fine grinding while machine is in motion. Cob breakers are bolted to sides and bottom of main frame; made of hard chilled iron arranged in spiral fashion. All bearings fully babbitted. Burrs made of most durable metals for long service, being "Crowfoot Pattern."

No. 3 Machine with two sets of 8-inch burrs, 35-lb. balance wheel, pulley size 8x6 inches, capacity 10 to 30 bushels per hour, requiring from 3 to 6 horse power. Weight, 245 lbs. Price... \$22.75

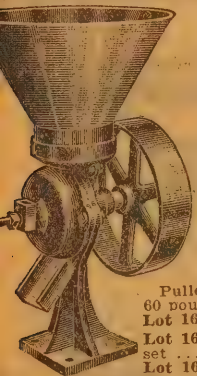
Extra burrs, coarse or fine, per set... \$1.50

No. 14 Machine with two sets of 10-inch burrs, 55-lb. balance wheel, pulley size 12x6 inches, capacity 30 to 60 bushels per hour, requiring from 7 to 12 horse power. Price... \$34.00

Extra burrs, coarse or fine, per set... \$2.00

5-ft. double sacking elevator for either size... \$18.00

10-ft. wagon box elevator with swing spout for either size... \$26.35



HARRIS FEED MILL

An excellent little mill for light power; taking up small space, just the machine you want where a limited amount of grinding is to be done. Built especially for engines from 1½ to 4 H.P.

Will grind shelled corn, wheat, oats, speltz, barley, rye and all kinds of small grain separately or mixed.

It is built entirely of iron and steel and every part is strong enough to resist six times the actual working strain.

The bearings are long and lined with a high grade babbit and can be oiled while mill is running.

The burrs are 5½ inches in diameter, ground perfectly true. Can be adjusted for fine or coarse grinding while running.

Pulley, 12 inches diameter, 3-inch face. Weight, 60 pounds. Furnished with 2 sets burrs... \$7.75

Lot 16-Z-7117. Price, complete... \$1.20

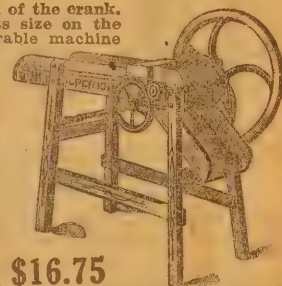
Lot 16-Z-7118. Extra Burrs, coarse or fine, per set... \$1.20

Lot 16-Z-7119. Balance Wheel, 15 lbs... 1.55

"Harris Leader" Feed Cutter SURPASSED BY NONE

This machine makes three cuts to one turn of the crank. Simplest and most durable feed cutter of its size on the market. Meets the demand for a good durable machine at a moderate price. Adapted for general work, where but few head of stock are kept.

Thoroughly well made of good materials. Very little gearing about the machine, and all parts are arranged in the most convenient manner. Throat is wide so that the fodder can be fed into the machine in a broad, thin body. Cutting knife is 11 inches long; made of tempered tool steel and makes a downward shearing cut against a hardened cutting edge. Knife makes three cuts to one turn of the crank. Length of cut is adjustable from ¾-inch to 1½-inch. Capacity per hour, 150 to 200 pounds dry fodder, 300 to 400 pounds of green fodder.



16-Z-8115. "Harris Leader" Feed Cutter. \$16.75

Weight, 170 lbs.

Harris Hand Corn Sheller



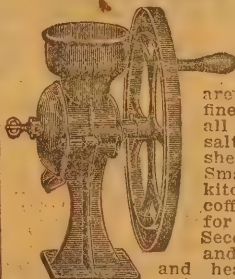
Made of
Cast Iron

Handiest and Most Complete Corn Sheller on the Market. This little cast iron corn sheller cannot be equalled for convenience and general utility. It is so simple that there is nothing about it to get out of order and so strong that it will not break. It can be adjusted to shell large or small ears with equally good results. The adjusting shell is held against the ear of

corn by a spring, the tension of which is easily and quickly adjusted. This forces the ear of corn against the shelling wheel, and causes the ear to revolve so that the corn is shelled from the ear clean. The shelled corn is dropped into the box to which the sheller is fastened, and the ears are dropped outside.

16-Z-8061. Weight, 15 lbs. Price... \$1.15

Harris Hand Grist Mill



A Handy Mill for any home, especially for those who keep poultry or a cow. Mills are adjustable to grind fine or coarse. Grinds all kinds grain, coffee, salt, dry bones, dry shells, etc. Three sizes. Small size suitable in kitchen for grinding coffee or cracking corn for small flock poultry. Second size much larger and has larger capacity and heavy balance wheel makes grinding easier. Largest size almost equal to small power mill and will easily grind for several head of stock.

- | No. | Weight. | Cap. per hr. | Price. |
|----------------|------------------------|--------------|--------|
| No. 16-Z-8037. | No. 1, 25 lbs. | ½ to 1 bu. | \$3.50 |
| No. 16-Z-8038. | Extra Burrs, per pair. | | .55 |
| No. 16-Z-8039. | No. 2, 50 lbs. | 1 to 1½ bu. | 5.25 |
| No. 16-Z-8040. | Extra Burrs, per pair. | | .75 |
| No. 16-Z-8041. | No. 3, 75 lbs. | 1½ to 2½ bu. | 8.50 |
| No. 16-Z-8042. | Extra Burrs, per pair. | | 1.25 |

Harris Hand Bone Mill

This little grinder reduces the cost of bone meal to mere labor.

\$3⁶⁰



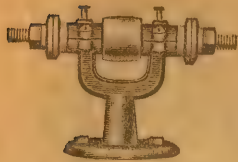
Teeth are strong and will not grind corn for family use. Fresh bones should be allowed to become thoroughly dry before grinding. It will grind oyster shells, gravel, old crockery, cracked corn, and other coarse feed for chickens.

Can be adjusted to grind fine or coarse. The crusher is cone shaped, which crushes the product first, then it passes into the coarse grinding plates. This is a much better way than many other mills made with stationary burrs.

16-Z-8021. Weight, 35 lbs... \$3.60

Two-Wheel Power Emery Grinder

No. 1 Two-Wheel Emery Grinder



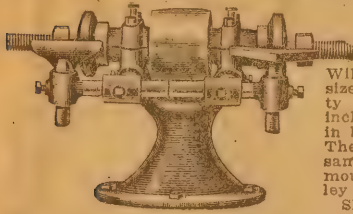
\$4.00

No. 16-Z-587. This sturdy little machine runs two wheels. Recommended size 6x1. Maximum wheel capacity 8x1. Has 1/2-inch steel spindle, 5/8-inch between flanges, pulley 1 1/2-inch diameter, 1 1/2-inch face. Just the thing for the small work shop. A handy little grinder that you will use constantly. Saves your time and lessens your work.

Shipping weight 15 pounds.

Price, not including stones.... **\$4.00**

No. 3 Two-Wheel Emery Grinder

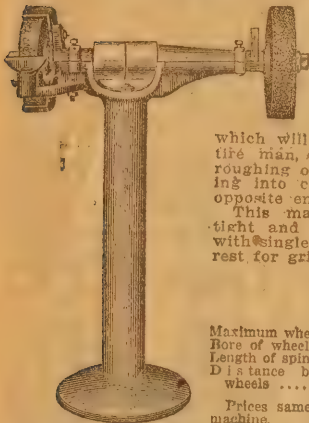


\$13.75

No. 16-Z-589. Emery Grinder. Will run two wheels. Recommended size 10x1 1/2. Maximum wheel capacity 12x2. Has a steel spindle 18 inches long and 1 1/2-inch diameter in bearings, 1 inch between flanges. The bearings are 3 inches long, and same style as engine-lathe bearings, mounted with brass oil cups. Pulley 3 1/2-inch diameter, 2 1/2-inch face. Shipping weight 45 lbs.

Price, not including stones..... **\$13.75**

Vulcanizers' Special, \$24.00



A very practical machine of light weight and low price for tire repair and general garage use. The extended bearing, which is a part of the machine proper, supports the spindle so as to prevent vibration and at the same time allows an unusually long distance between wheels, a feature which will particularly appeal to the practical tire man, as it permits of the cleaning and roughing of the largest size tires without coming into conflict with the stand or wheel on opposite end of shaft.

This machine is regularly furnished with tight and loose pulleys but will be furnished with single pulley if so desired. Guard and tool rest for grinding end of machine furnished.

SPECIFICATIONS

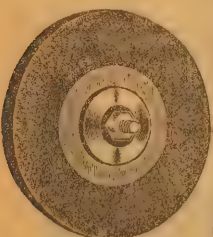
Maximum wheel size	10x2	Height to center of spindle	86 in.
Bore of wheel	1 in.	Length of bearings	4 in.
Length of spindle	33 in.	Size of pulleys	3/4 x 1 1/2
Distance between wheels	23 1/2 in.	Weight crated	125 lb.

Prices same for either single or tight and loose pulley machine.

16-Z-102. Price not including stones or buffing wheel, but otherwise complete..... **\$24.00**

"Premier" Corundum Wheels

These wheels are made with the grain running from fine to coarse and of proper hardness to meet the requirements for any kind of grinding.



No. 16-Z-2528

When ordering be sure and state what kind of material you wish to grind. Whether it is for steel or iron or for edge tools and if dry wet or dry grinding. Always mention number, diameter and thickness of wheel and size of hole in center.

Diam. In.	Thickness, Inches									
	1/4	3/8	1/2	5/8	3/4	1	1 1/4	1 1/2	1 3/4	2
2	0.18	0.21	0.23	0.25	0.27	0.30	0.35	0.39	0.44	0.48
3	0.24	0.27	0.30	0.33	0.36	0.44	0.50	0.57	0.63	0.69
4	0.33	0.38	0.42	0.46	0.50	0.59	0.68	0.77	0.84	0.93
5	0.45	0.51	0.57	0.63	0.68	0.80	0.90	1.02	1.14	1.25
6	0.57	0.65	0.72	0.80	0.87	1.02	1.17	1.34	1.49	1.62
7	0.69	0.79	0.89	0.99	1.08	1.29	1.49	1.68	1.89	2.07
8	0.81	0.94	1.07	1.20	1.32	1.56	1.83	2.07	2.34	2.58
10	1.08	1.28	1.47	1.67	1.86	2.23	2.67	3.03	3.45	3.84
12	1.26	1.53	1.80	2.07	2.34	2.85	3.39	3.93	4.47	5.01
14	1.47	1.82	2.16	2.48	2.83	3.47	4.26	4.95	5.75	6.35
16						3.48	4.38	5.28	6.15	7.07

PREMIER SPECIAL SAW GUMMER-CORUNDUM WHEELS.
These wheels are made especially for saw gumming purposes and are guaranteed not to burn or harden steel. They cut fast and leave the saw teeth free from burrs or rough edges.

When ordering be sure and state diameter, thickness of wheel and size of hole in center. 16-Z-2659 Round Face; No. 16-Z-2660 Bevel Face.

Diameter	Thickness, Inches			
	3/4	1	1 1/4	1 3/4
6 Inches	\$0.60	\$0.70	\$0.75	\$0.95
8 Inches	0.85	1.00	1.15	1.40
10 Inches	1.15	1.40	1.60	2.00
12 Inches	1.85	1.65	1.95	2.55

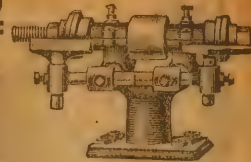
No. 2 Two-Wheel Emery Grinder

No. 16-Z-588. This machine will run two wheels. Recommended size 8x1 1/2. Maximum wheel capacity 10x1 1/2. Has a steel spindle 1 1/2-inch in bearing, 3/4-inch between flanges. The bearings are 2 inches long, made with caps, and are adjustable. Mounted with brass oil cups, pulley 2 1/2-inch diameter, 2-inch face.

Shipping weight 25 lbs.

Price, not including stones, **\$8.10**

\$8.10

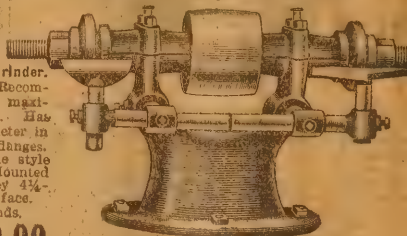


No. 4 Two-Wheel Emery Grinder

\$19.00

No. 16-Z-590. Emery Grinder. Will run two wheels. Recommended wheel size 12x2. Maximum wheel capacity 14x2. Has steel spindle 1 1/2 inch diameter in bearings, 1-inch between flanges. The bearings are the same style as engine-lathe bearings. Mounted with brass oil cups, pulley 4 1/2-inch diameter, 3 1/2-inch face. Shipping weight 75 pounds.

Price, not including stones..... **\$19.00**

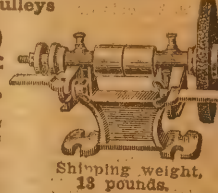


No. 300 Two-Wheel Emery Grinder With Tight and Loose Pulleys

A very light machine, with Split Cast Iron Bearings, adjustable tool rests. Bearings are arranged so that wear can be taken up and are fitted with steel-plated Oil Cups. Height Arbor to Table..... 4 1/2 inches
Length of Spindle..... 13 inches
Bore of Wheel..... 1 1/2 inches
Distance between Wheels..... 7 1/2 inches
Size of pulleys..... 1 1/2 x 1 1/2

16-Z-405. Price, not including stones..... **\$4.00**

\$4.00

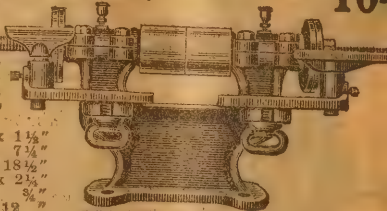


Shipping weight, 13 pounds.

No. 400 Two-Wheel Emery Grinder With Tight and Loose Pulleys

Long rabbitted bearings, easily adjustable tool rests and large wheel capacity are the distinctive features of this machine. Guards attach to head. Runs two wheels 10x1 1/2.
Maximum wheel size, 12x 1 1/2
Height spindle to table..... 7 1/2 inches
Length of spindle..... 13 1/2 inches
Size of pulleys..... 2 1/2 x 2 1/2 inches
Bore of wheel..... 2 x 3/4 inches
Dist. between wheels..... 12 inches
Shipping weight, 42 lbs.

16-Z-436. Price, \$10.50 Not including stones



\$10.50

Counter Shafts

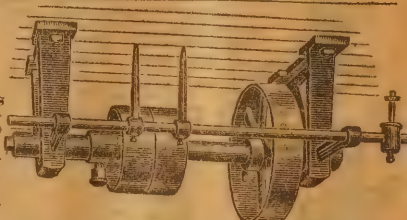
These Countershafts are of superior construction and guaranteed to be in perfect alignment. They are furnished complete with drive pulley, tight and loose pulleys, Langer's shifting rod and belt shifter.

No. 16-Z-597. Size No. 1.
Size of Drive Pulley..... 3x2 inches
Size of Tight and Loose Pulleys..... 4x2 inches
Length of Shaft..... 18 inches
Drop of Hanger..... 6 inches
Diameter of Shaft..... 1/2 inch
Shipping Weight..... 40 lbs.
Price..... **\$7.75**
Will fit our No. 1 Bench Emery Grinder.

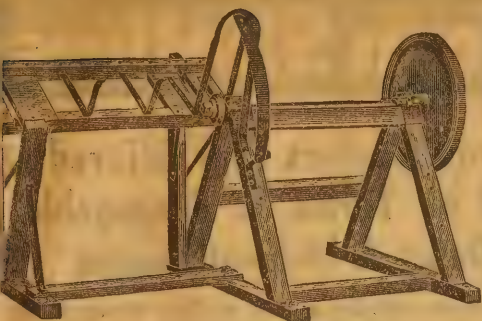
No. 16-Z-598. Size No. 2.
Size of Drive Pulley..... 5x2 1/2 inches
Size of Tight and Loose Pulleys..... 4x2 inches
Length of Shaft..... 21 inches
Drop of Hanger..... 6 inches
Diameter of Shaft..... 5/8 inch
Shipping Weight..... 65 lbs.
Price..... **\$9.90**
Will fit our No. 2 Bench Emery Grinder.

No. 16-Z-599. Size No. 3.
Size of Drive Pulley..... 10x3 1/2 inches
Size of Tight and Loose Pulley..... 5x3 inches
Drop of Hanger..... 8 inches
Length of Shaft..... 24 inches
Diameter of Shaft..... 1 inch
Shipping Weight..... 60 lbs.
Price..... **\$12.00**
Will fit our No. 3 Bench Emery Grinders.

No. 16-Z-600. Size No. 4.
Size of Drive Pulley..... 12x4 inches
Size of Tight and Loose Pulley..... 5x3 inches
Drop of Hanger..... 8 inches
Length of Shaft..... 26 inches
Diameter of Shaft..... 1 1/4 inches
Shipping Weight..... 70 lbs.
Price..... **\$15.75**
Will fit our No. 4 Bench Emery Grinder.



BEST VALUES IN WOOD SAW FRAMES!



TILTING TABLE WOOD SAW FRAME WITH POLE EXTENSION

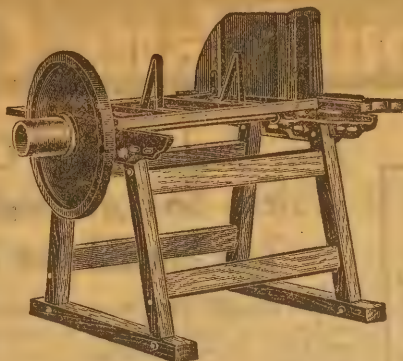
Perfectly adapted for sawing either long poles or heavy logs, etc. The piece to be sawed is put upon the tilting table and moved toward the saw, by slight pressure with the hand. The whole frame is so perfectly balanced that a child can work it. Right hand frame furnished, unless otherwise specified. Mandrel 1½" diam., turned to fit 1½" hole in saw. Fitted with 95-lb. balance wheel. The prices quoted are F. O. B. Cars factory, near Chicago. Weight 325 lbs. Shipped Knocked Down.

16-Z-490.	Frame complete, no saw.....	\$22.75
16-Z-491.	Frame complete, 20" saw.....	36.25
16-Z-492.	Frame complete, 21" saw.....	27.65
16-Z-493.	Frame complete, 28" saw.....	29.50

TILTING TABLE WOOD SAW FRAME

We furnish the saw frame above without extension tilting table for sawing cordwood and short boards, etc.

16-Z-497.	Frame complete, 20" saw.....	\$24.50
16-Z-498.	Frame complete, 22" saw.....	26.00
16-Z-499.	Frame complete, 28" saw.....	27.75
16-Z-500.	Frame complete, no saw.....	20.00

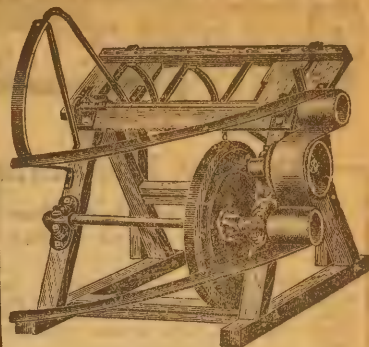


SLIDING TABLE FRAME

Table is mounted on roller bearings which run on the table guides, and is very easy to operate. The frame is made of hard wood, well braced and bolted, and is nicely finished. A very substantial and strong frame throughout. The Mandrel is 1½ inch diameter, turned to fit 1½ inch hole in saw. Fitted with 95-lb. balance wheel. The pulley is 5 inch diameter and has 6 inch surface. Weight 300 lbs.

Right hand frame furnished, unless otherwise specified. Prices quoted are F. O. B. cars factory, near Chicago. Shipped knocked down.

16-Z-504.	Complete without saw.....	\$28.00
16-Z-505.	Sliding Table Saw Frame, with 20-inch saw.....	31.50
16-Z-507.	Sliding Table Saw Frame, with 24-inch saw.....	32.85
16-Z-509.	Sliding Table Saw Frame, with 28-inch saw.....	34.65

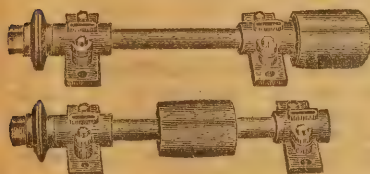


TILTING TABLE POLE SAW FRAME

This Tilting Table Saw Frame is high grade in every way. It is constructed of extra fine hardwood. Braced and bolted. Balance wheels on separate shaft, entirely out of the way so that long poles may be sawed, as well as cord wood. The power is fed direct to saw. The belt passes around the idler pulley to the shaft, giving speed and well balanced motion to the saw, Mandrel 1½" diam., turned to fit 1½" hole in saw. Fitted with 95-lb. balance wheel. Weight, 350 lbs. The prices quoted are F. O. B. factory, near Chicago. Shipped knocked down.

16-Z-511.	Without saw.....	\$28.00
16-Z-512.	With 20" saw.....	31.50
16-Z-514.	With 24" saw.....	32.85
16-Z-515.	With 28" saw.....	34.65

CIRCULAR SAW MANDRELS



Our circular saw mandrels are the highest grade and guaranteed to give satisfactory service. Bearings are extra long and made of specially chilled iron and are well babbitted. The shaft is cold rolled steel.

Lot 16-Z-530. Pulley in center.

Lot 16-Z-531. Pulley on right-hand side, with left-hand thread.

Size.	Diam. Pulley.	Face of Pulley.	Length Shaft.	Diam. Shaft.	Hole in Saw.	Price Each.
1.....	2½	3½	16.....	1 1/16	1 1/8	\$ 4.50
2.....	3	4	19.....	1 3/16	1 1/4	5.65
3.....	3½	4½	21.....	1 5/16	1 1/2	7.50
4.....	4	5	24.....	1 7/16	1 5/8	9.40
5.....	4½	5½	26.....	1 7/16	1 5/8	10.50
6.....	5	6	28.....	1 7/16	1 3/4	11.65
7.....	5½	6½	30.....	1 7/16	1 3/4	12.00
8.....	6	7	32.....	1 9/16	1 1/2	14.00
9.....	7	8	37.....	1 11/16	1 1/2	16.80
10.....	8	8	41.....	1 13/16	1 5/8	19.60

SEPARATE PARTS

Build them Yourself. Here are the Parts, Mandrels, Balance Wheels, Boxes, Pulleys.



We offer for the convenience of those who wish to build their own saw frames, the following parts:

16-Z-2515.	Mandrel, 1½ inch in diameter only. Turned down to fit 1½ inch hole in saw. Weight about 35 lbs. Length 49".....	\$3.75
16-Z-2517.	Babbitted Bearing Boxes, connected. Weight about 35 lbs. Price per set.....	\$3.70
16-Z-2519.	Balance Wheel. Weight, 95 lbs. Price each.....	\$5.85

16-Z-2521. Belt Pulley, 5 in. in diameter, 6-inch face. Weight 11 lbs. Price.....

16-Z-2523. Consists of Mandrel shaft complete with balance wheel, boxes and belt pulley. Weight 170 lbs. Price.....

NOTE—When ordering pulley and balance wheel separately, unless otherwise stated, they will be furnished to fit 1½ inch shaft.

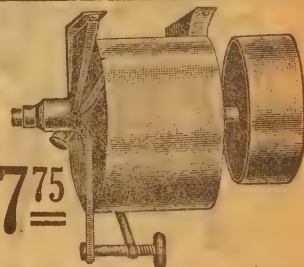
We can furnish in addition, parts and saw blades for any kind of an outfit you may want to rig up. Write us your needs, no matter how different and our expert engineering department will give you free plans and advice. Our stock includes every kind of wood-working machinery—standard and special.

"NEW WAY" LINE SHAFT SPEED GOVERNOR



Your Shaft Line Regulated by a Turn of Handle

These splendid shaft line outfits are fitted with an efficient well made speed controller designed to regulate the speed of several pulleys at once without stopping your motor or gasoline engine; can be used with any engine up to 5 H. P.; you start, increase or decrease the speed of your machinery by turning the hand wheel on the controller. Once started, this engine may continue to run without the necessity of shutting it off when the machine you are operating requires attention. All pulleys are operated at one time. With one of these complete shaft line outfits, you can operate your cream separator, churn, washing machine or any other small machinery that you have without fear of damage in running it at a greater speed than the machine was built for. With one of these complete shaft lines fitted with this excellent speed governor, your machine is gradually brought up to speed and then kept running at just the right speed. All vibrations are taken up in the speed governor. These shaft line outfits are offered in three popular sizes and prices are very low. Can be used on the wall, ceiling or floor with the same results.



Furnished with Three Complete Line Shaft Sizes

16-Z-400.	Speed Governor only mounted on a 2-ft. wood base.....	\$17.75
16-Z-401.	Shaft line outfit including speed governor; 8 ft. of 1-in. line shaft, 1 4-in., 1 6-in. and 2 8-in. pulleys; 2 hangers. Mounted on 8 ft. wood base. Weight 115 lbs. Complete.....	24.75
16-Z-402.	Shaft line outfit complete with speed governor, 12 ft. of 1-in. line shaft, 1 4-in., 2 6-in. and 3 8-in. pulleys; 3 hangers. Mounted on 12-ft. wood base. Weight 150 lbs. Complete.....	30.80

Directions for operating and setting up sent with each outfit.

**Sold
ONLY
By Us**

Famous Watts Corn Shellers

A Few Reasons

**Why You Too Should Own
A WATTS—And NO OTHER**

Because Watts Corn Shellers, in all sizes, are "The World's Best" machines; still you can buy them from us under most liberal terms, at big price reductions.

Because these shellers are the most simple machines of their kind ever built—about one-tenth the number of working parts as compared to other corn shellers—nothing to get out of order. No delays or waiting for repairs.

Because of their splendid construction and durability—no springs and nothing to wear out. Fewer bearings—less wearing parts.

Because they are the most economical corn shellers to operate. They give you greater capacity and require less power than any other corn sheller.

Because of their big capacity, they do your shelling in the least possible time and get all the corn.

Because they will shell corn in any condition. Irregular sizes, smallest to largest size ears—hard or soft—green or dry. Watts Shellers always shell perfectly and never crack the kernels.

Because any Watts Sheller gets all the corn on the cobs and will pay you a profit on the corn you have not been getting.

Because they have been manufactured and distributed for many years and have always proved themselves to be the best and most efficient corn shellers on the market.

Because there is a size to meet every requirement featuring finest workmanship, greatest durability, utmost efficiency, biggest capacity, least power and lowest prices.

**The World's Best Corn Shellers Now Offered at
Prices So Low and on Terms So Reasonable
You Should Not Delay A Moment Longer**

Even though you have no immediate use for a corn sheller, we urge you to buy now. All machines in stock at the present time ready for immediate shipment are made from material purchased by the Watts Manufacturing Company before the big price advances of the past year.

Corn growers in every section of the country are getting the full benefits of this great sale. Wherever corn shellers are used, you will find these Watts Machines the world's best strongly represented—the choice of men who know.

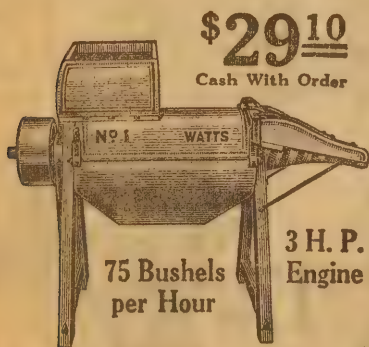
And remember, this great sale of ours not only offers these famous machines at big price reductions, but you can now buy your Watts Sheller under most liberal terms of payment, as fully outlined on the pages which follow.

30 Days' Free Trial

Whether you send us cash in full with your order, deposit the money with your banker or buy your corn sheller on time in three payments, we want you to distinctly understand that your purchase is made under our liberal 30-day Free Trial. This will give you sufficient time to test and use the machine on your own work and convince yourself of the splendid purchase you have made.

Liberal Guarantee

We insist that you be satisfied in every way with your purchase of any Watts Corn Shelling Outfit before we will consider the transaction closed. If you do not find the corn sheller sent you to be exactly as pictured and described in the pages of this book—or if for any reason whatsoever you are not satisfied, your money, including all transportation charges, will be promptly returned without question or quibble.



This is the smallest of the Watts Corn Sheller line. Recommended for shelling feed corn.

Watts No. 1 Corn Sheller

This sturdy little machine is just the size for the man wishing to shell only enough corn for his own needs. It has a capacity of 75 bushels an hour and can be operated to best advantage with a 3 H. P. engine.

The Ears Do the Shelling in Watts Shellers

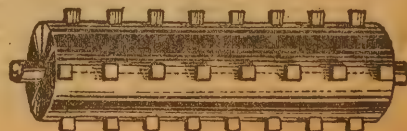
A heavy cast iron cylinder, with lugs set in staggered rows, serves to keep the ears in motion. These lugs are set in spiral fashion so as to carry the cobs from one end of the shelling jacket to the other.

The No. 1 Watts Corn Sheller has proven to be very popular among stock feeders and farmers with small power. It shells the corn clean from the cob. When so desired, the bran and soft tips of the cobs can be removed with the corn. Many feeders are replacing their cob crushers with a Watts No. 1 Sheller. This machine will shell ears of any size, in any condition, if clean husked.

36-Z-900. Watts No. 1 Sheller, capacity 50 to 75 bushels per hour, length 5 ft. 4 in., width 3 ft., height 3 ft. 9 in., speed 800 R. P. M., equipped with 8x4-inch drive pulley. Weight 180 lbs. Price, cash after 30 days..... \$30.00

An Important, Exclusive Feature of Watts Construction

The heavy cast iron cylinder, illustrated at the right, is what does the work in the Watts No. 1 and No. 4 Shellers. It is mounted on a heavy steel shaft running in babbitted bearings. The lugs serve to keep the ears in motion, and being set on the cylinder in spiral fashion, carrying the cobs from one end to the other, the Watts Sheller cleans the cob without cracking the kernels.



202 Harris Cream Getter Cream Separators are Priced Very Low!! See Them!

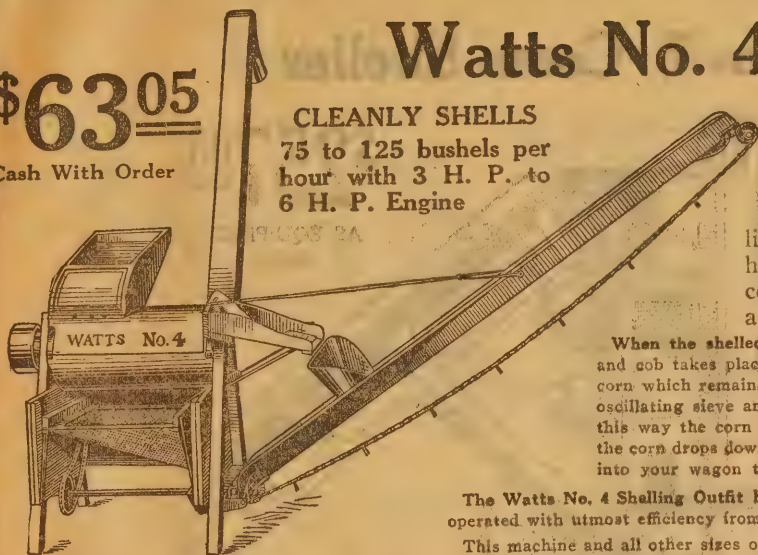
HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

At Big Price Reductions!

Most Liberal Terms

\$63⁰⁵

Cash With Order



Watts No. 4 Corn Sheller

CLEANLY SHELLS

75 to 125 bushels per hour with 3 H. P. to 6 H. P. Engine

To Take Care of Your Own Needs and Those of a Few Neighbors

This machine is constructed along the same lines as the Watts No. 1 Machine, except that it has a larger capacity and is equipped with a cob stacker and grain elevator. It shells, cleans and loads all the corn and stacks the cobs.

When the shelled corn leaves the shelling jacket, the separation of the corn and cob takes place instantly. The cobs are elevated by the cob stacker. Any corn which remains on the cobs after they leave the cylinder is removed by the oscillating sieve and drops down with the other corn on the cleaning sieve. In this way the corn is saved which is usually thrown out with the cobs. When the corn drops down through the sieve, it is spouted upward through the elevator into your wagon thoroughly cleaned by the cleaning fan.

The Watts No. 4 Shelling Outfit has a capacity of from 75 to 125 bushels per hour and can be operated with utmost efficiency from any engine developing from 3 H. P. to 6 H. P.

This machine and all other sizes of Watts Shellers are sold through either of three plans, which are described in detail at the foot of the next page. And remember that, regardless of which plan of payment you choose, you are under no obligations to keep the machine if after 30 days you find that it does not do every bit as much as we claim for it.

36-Z-901.

Watts No. 4 Corn Shelling Outfit, with cleaning system, cob stacker and grain elevator, complete; cash after 30 days.... \$65.00

The above illustration shows a Watts No. 4 Corn Sheller. It is 6 ft. long, 3 ft. wide, 4 ft. high. It is furnished complete with 3½ ft. corn elevator and 8 ft. cob stacker. Lagged drive pulley 8 in. diameter, 4 in. face, speed 800 R. P. M. Shipping weight, complete as illustrated, 440 lbs.

Watts No. 4 Corn Sheller

Complete With Automatic Feeder

This machine is identical with the No. 4 Sheller, but in addition it is equipped with an automatic feeder.

An automatic feeder is a very valuable asset to a corn shelling outfit in that it keeps the shelling chamber filled to just the right capacity to insure the greatest output of shelled corn at all times. It saves labor, time and corn.

The Watts No. 4 Corn Sheller with automatic feeder is just the outfit for the man who wishes to do all of his own shelling and in addition do some shelling for his neighbors.

This outfit is backed by the same liberal guarantee and is sold under the same terms that have made all sizes of Watts Shellers so popular among corn feeders everywhere. The 30-day free trial offer also applies to this outfit.

The difference in sale prices on this machine complete with automatic feeder and the Watts No. 4 without the feeder is but a matter of a few dollars that will be quickly saved in time, labor and corn.

36-Z-902. Watts No. 4 Corn Shelling Outfit, complete with an automatic feeder, cleaning system, cob stacker and grain elevator. Price, cash after 30 days..... **\$85.00**



\$82⁴⁵

Cash With Order

Capacity 75 to 125 Bushels Per Hour with 4 H. P. to 6 H. P. Engine

Cash With Order

Plan No. 1 By sending cash in full with your order, you will be allowed a discount of 3 per cent from the sale price mentioned at the end of the descriptive matter with each machine.

Cash After 30 Days

Plan No. 2 If you wish to examine and use the corn sheller for 30 days, send us a letter from your banker stating that the full sale price has been deposited with him, and will be sent to us when you are fully satisfied.

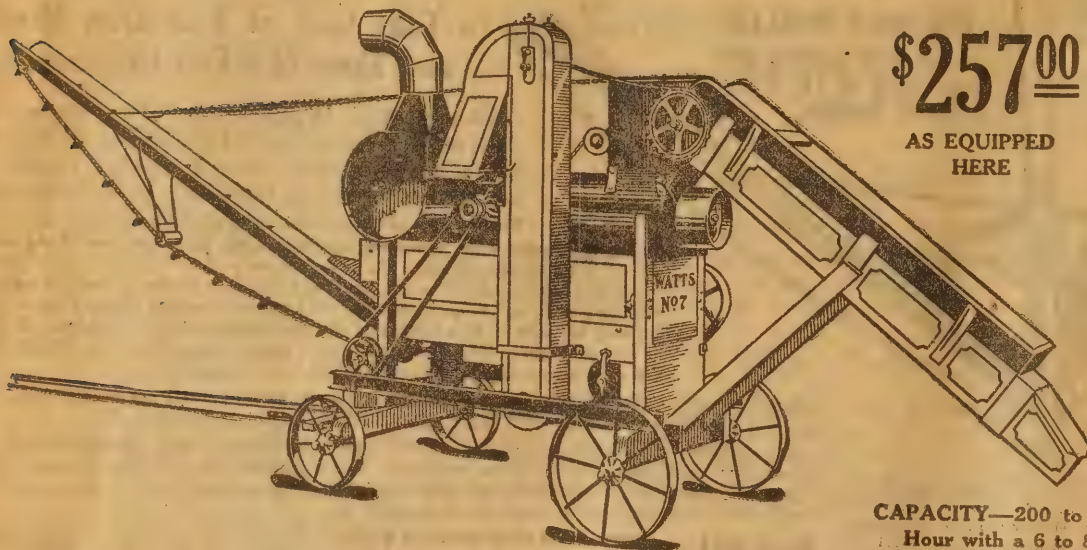
On Time--3 Payments

Plan No. 3 An extra charge of \$2.50, on either the No. 1 or No. 4 machines is necessary under this plan. Send one-third of the amount with your order and blanks will be sent for your signature for balance to be paid one-third in two months and one-third in four months.

**30 Days
FREE
Trial**

The Best Corn Shellers Made!

Watts No. 7 Corn Sheller



\$257⁰⁰

AS EQUIPPED
HERE

**CAPACITY—200 to 250 Bushels Per
Hour with a 6 to 8 H. P. Engine**

The Watts No. 7 Corn Sheller is an excellent investment for you if you wish to do contract shelling. This machine will shell your corn quickly in or out of the husk.

The corn passes thru three separate cleaner sieves in the machine. The Watts No. 7 is also equipped with a husk and dust fan, the outlet of which is operated on a swivel point, permitting the operator to blow the husk and dust in any desired direction.

Watts No. 7 Corn Sheller with Standard Equipment

Watts No. 7 Corn Sheller with cob stacker, sacking elevator, type "R" feeder, mounted on steel trucks. Price..... **\$265.00**

36-Z-903—Watts No. 7 Corn Sheller with wagon box, grain elevator cob stacker, type "R" feeder, mounted on steel trucks. Price..... **\$266.00**

General Specifications

Capacity, bu., per hour: Clean husked, 200 to 250; corn in shuck, 50 to 75.

Engine Power: 8 to 10 H. P.

Speed: 800 to 1,100 R. P. M.

Weight, mounted with standard equipment: 1,400 lbs.

Weight of swivel extension: 300 lbs.

Height to top of hopper, mounted: 6 ft. 9 in.

Length of sheller only: 6 ft. 3 in.

Width of sheller only: 2 ft. 7 in.

Size of drive pulley: 8 in. by 6 in.

Additional Equipment

"R" Type Feeder 7 ft. long, separate track chains used, with individual tighteners, securing equal tension at all times. No chance for clog in hopper, no matter how fast you feed, or of feeder buckets catching and breaking chain. Price..... **\$22.50**

"S" Type Feeder, 10 ft. long, double chain, with straight bucket. Price..... **\$30.00**

Sacking Elevator, 4 ft. long. Price..... **\$21.00**

Wagon Box Elevator, 9 ft. with swivel elbow, allowing change without stopping. Price..... **\$22.00**

Cob Stacker—Straightaway, 12 ft. long. Price..... **\$19.00**

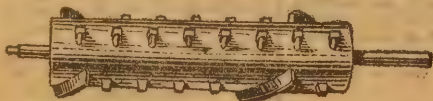
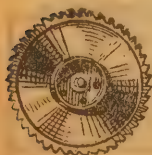
Swivel Extension Feeder, 12 ft. long, single chain, with straight bucket. Price..... **\$35.00**

Horse Hitch Team Truck 16x22-inch wheels, 2½x¾-inch tires, quick detachable tongue, 48-inch thread. Price..... **\$35.00**

36-Z-904. Watts No. 7 Corn Sheller with cleaning system and check fan. Only..... **\$167.50**

NOTE—When swivel extension feeder is required, the "S" type of feeder must be used.

Vital Parts of the Watts No. 7 Corn Sheller



Two important features of Watts splendid construction are shown above. The picker wheel is continually revolving directly in front of the cob outlet. This prevents any possibility of wet husk hanging to the cob throat. It requires no adjustment and need not be removed when shelling clean husked corn. The other illustration shows the cylinder used in this sheller. Note the lugs in staggered rows and the adjustable feed wings.

Under Most Liberal Terms!

**Big
Reduced
Prices**

Watts No. 8 Double Cylinder Corn Sheller

\$446²⁰

Equipped with Wagon Box,
Elevator, Swivel Cob Stacker,
Feeder, 14 ft. Swivel Extension
Feeder and 10 ft. Intermediate
Section



Here is a machine that has established an enviable record and lasting reputation among extensive corn growers who shell their own crops and do large custom work. It is an ideal machine on the road, in the elevator or mill. Built for winter custom work because it is easily transported from one job to another over bad roads.

The same construction plan of simplicity, durability and utmost capacity from least power found in the smaller size Watts Shellers has been carefully followed in this big capacity custom machine. The double cylinder arrangement operates on the same excellent principle as featured in the other sizes.

In the No. 8 Sheller, two shelling cylinders are used instead of one. These cylinders are enclosed in separate shelling chambers and revolve in opposite directions. All the ears can run through both cylinders. As each ear must pass through both shelling jackets, it is stripped clean before reaching the cob outlet. It is not necessary to hold back the cobs with a gate to insure a clean job, except when shelling extremely wet tough corn. This takes less power as the cob opening can be made nearly as large as the hopper opening.

The double cylinder method also insures a better job of cleaning than can possibly be obtained with a one cylinder sheller of light capacity, for the reason the shelled corn falls through the entire length of both shelling jackets in a scattered condition onto a cleaning shoe, instead of being carried to one side or end and poured in one large stream onto a sieve. The fact that Watts Shellers do the work with a large cob outlet insures less breakage of cobs than with a single cylinder machine.

The corn passes thru three separate cleaner sieves in this machine. The Watts No. 8 is also equipped with a husk and dust fan, the outlet of which is operated on a swivel point, permitting the operator to blow the husk and dust in any desired direction. A husk sack is also furnished with the regular equipment.

36-Z-905—Watts No. 8 Custom Corn Sheller, equipped with wagon box elevator, swivel cob stacker and feeder, mounted on steel trucks. Price.....\$390.00

General Specifications

Capacity—Bu. per hour in husked corn.....600 to 800
Power, gasoline or kerosene.....12 to 15 H. P.
Speed.....800 to 900 R. P. M.
Size of Drive Pulley.....10 x 6 in.
Weight mounted.....3,000 lbs.
Height to top of Hopper, mounted.....7 ft. 6 in.
Height to top of Hopper, without Trucks.....5 ft. 9½ in.
Width.....34½ in.
Length (not including Feeder and Stacker).....7 ft. 10 in.
Length, mounted (not including Feeder and Stacker).....9 ft. 3½ in.

Wagon Box Elevator—Nine feet high, equipped with swivel elbow, permitting the changing from one wagon to another without stopping the Sheller. The elevator swings from the center. One bolt removed from the bottom and the elevator swings to a horizontal position.

Straight-Away Feeder—Twelve feet long, hinged at top and equipped with windlass. Double strand chain, straight bucket type.

Swivel Cob Stacker—Fourteen feet in length; can be swung to any desired angle while Sheller is in operation. Also equipped with windlass for raising and lowering while machine is running.

Steel Team Truck—24 by 34-inch wheel, 3x¾-inch tires, 54-inch tread. Everything is steel but the tongue.

Additional Equipment

14 Ft. Swivel Extension Feeder.....\$45.00 10 Ft. Intermediate Section.....\$25.00

Cash With Order

Plan No. 1 By sending cash in full with your order, you will be allowed a discount of 3% from the sale price mentioned at the end of the descriptive matter with each machine.

Cash After 30 Days

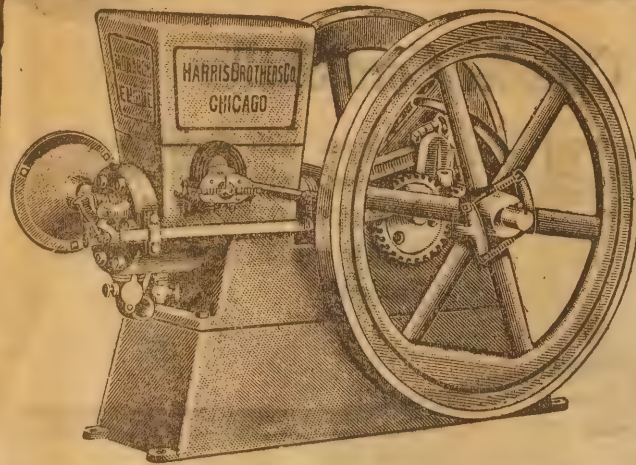
Plan No. 2 If you wish to examine and use the Corn Sheller for 30 days, send us a letter from your banker, stating that the full sale price has been deposited with him and will be sent to us when you are fully satisfied.

On Time—3 Payments

Plan No. 3 An extra charge of \$5.00 on either the No. 7 or No. 8 machine is necessary under this plan. Send us one-third of the amount with your order, and blanks will be sent for your signature for the balance, to be paid one-third in two months and one-third in four months.

Reliable Monarch Engines

BUILT for
GASOLINE or KEROSENE



MONARCH GASOLINE ENGINE ON CAST SUB BASE

Gasoline Engines

$1\frac{3}{4}$ to 7 h. p. **\$45⁰⁰** and Upwards

They Embody All Latest and Best Improvements

Monarch Engines are Simple in design and trouble-proof

Throttle Governor insures smooth operation

Easily starting made certain by vaporizing fuel

Speed regulator adjustable while engine is running

Water spray valve for vaporizing fuel

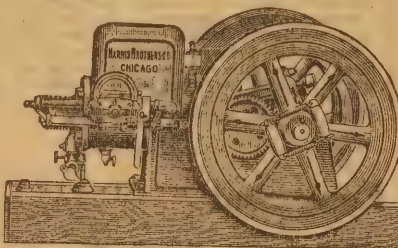
Fuel economy: One-tenth gallon fuel per h.p. hour

Conservative ratings develop 20 per cent over ratings shown

These Celebrated Engines —now built for Harris Brothers Co.

THE builders of these high grade engines, like many other leading manufacturers, were willing to make the necessary price concessions in order that we might use our wonderful sales organization to acquaint thousands of engine users throughout the country with the one real successful gasoline or kerosene engine. Although they have been continually built and distributed for many years, this is positively the first time in their entire history that they have sold direct to the consumer at a price reduction. In every way we have investigated by actual test and convinced ourselves that Monarch Engines are the world's best before we were ready to distribute them. Read the conditions of our liberal terms, our free trial and guarantee forever—the greatest engine offer ever made.

Monarch Engines are all made complete by one of America's best equipped engine builders. The improved construction embodies all newest and best features with many additional exclusive points of merit. Always sure starting and steady running under any and all conditions. They are constructed throughout of finest material beautifully finished in red enamel artistically stripped. Some of the main important features are the detachable cylinder head, perfect poppet valves, malleable iron "I" beam connecting rod, Webster oscillating magneto on all sizes. Note the additional features mentioned at the side of these pages.



1½ H.P. Monarch Gasoline Engine
This Monarch Gasoline Engine is the ideal power for operating a small line shaft connected with your Cream Separator, Grist Mill, Fan Mill, Washing Machine, Grindstone or any other small farm machinery. It gives you full rated power at all times at lowest possible fuel expense. Although this is the smallest of the Monarch Engines, all splendid features are embodied in its construction. Monarch Gasoline Engine, size 1½ h.p. (full explanation on opposite page).
36-Z-120. Sale Price..... **\$45.00**

LIBERAL TERMS! Time to Pay if You Wish!

You can buy your Monarch Engine in any size under most liberal terms; three ways to pay, as follows:

Plan No. 1 By sending cash in full with order you will be allowed a discount of 3% from these prices.

Plan No. 2 If you wish to examine and use the engine for thirty days, send us a letter from your banker stating that the full sale price has been deposited with him and will be sent to us when you are fully satisfied.

Plan No. 3 If you wish to buy your engine on time in three payments—an extra charge of \$2.50 will be necessary to cover our bookkeeping expense. Send one-third of the amount with your order and blanks will be sent for your signature for the balance to be paid one-third in two months and one-third in four months.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

Repair Parts Can Always Be Supplied

Solve Your Power Problems!

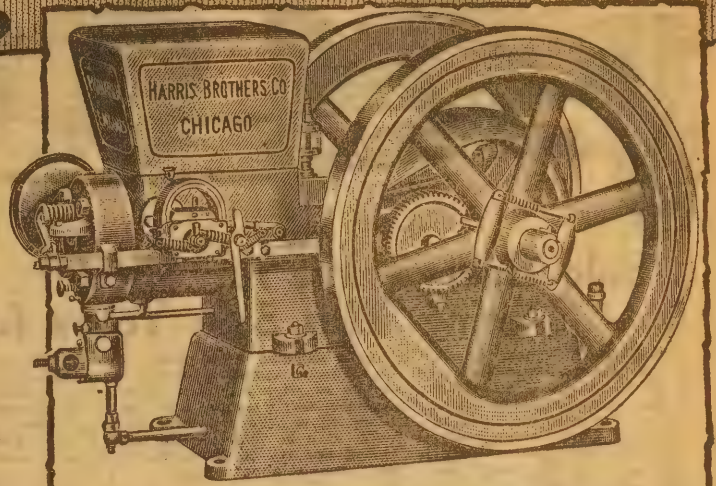
**WEBSTER
OSCILLATING MAGNETO**

Kerosene Engines

3 h. p. to **\$87⁰⁰** and
10 h. p. Upwards

**Throttling Governor-Webster
Magnetto-Kerosene Carburetor**

**Sure Easy Starting—The
Ideal Engine for the Farm**



MONARCH KEROSINE ENGINE ON CAST SUB BASE

SPECIFICATIONS AND SALE PRICES

ORDER NO.	GASOLINE ENGINES				KEROSENE ENGINES			
	36-Z-120	36-Z-121	36-Z-122	36-Z-123	36-Z-320	36-Z-321	36-Z-322	36-Z-323
Size, H. P.	1½	3	5	7	3	5	7	12
Price on skids..	\$45.00	\$75.00	\$100.00	\$150.00	ON CAST SUB BASE ONLY			
Price on cast Sub base		\$79.00	\$107.00	\$160.00	\$87.00	\$113.00	\$170.00	\$290.00
Speed, R.P.M....	500	400	350	325	450	400	370	300
Bore, inches....	3½	4½	4¾	5½	4½	4¾	5½	6¾
Stroke, inches..	5	6	8	10	6	8	10	12
Pulley, inches..	4x4	8x6	12x6	14x8	8x6	12x6	14x8	22x8
Dia. Crank Pin, inches	1½	1¾	1¾	2	2	1¾	2	2½
Length Crank Pin, inches ..	1¾	1¾	1¾	2	1¾	1¾	2	2½
Length Connect- ing Rod, in..	10½	12½	14½	19	12½	14½	19	26
Length Piston, inches	4	5½	6	7	5½	6	7	9½
No. of Piston Rings	3	3	3	3	3	3	3	3
Fuel Tank, gals.	1	2½	2½	7½	3½	4	8½	11
Wght Flywheel.	34	81	142	250	81	142	250	375
Shipp'g Weight.	225	475	715	1250	485	725	1265	2450

Monarch Pumping Outfits

**Kerosene car-
buretor designed
for cheapest fuel**

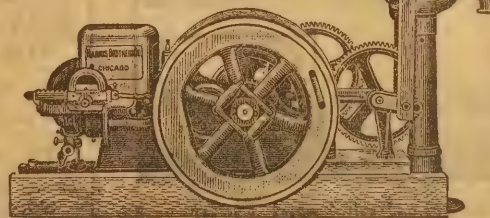
**Cooling hopper of
special design pre-
vents cracking
from frost**

**Modern design
embodying all
good points**

**Drop forge crank
shaft**

**Thick walled
cylinder permits
boring three times**

**Ignition
Webster's oscillat-
ing magnetto on
all sizes**



Pump and Pump Standards Not Supplied

Includes regular Monarch Engine and geared pump-
ing jack, mounted on wood skids. Jack is ar-
ranged for direct connection to pump standard; no
belts. By taking out four lag screws the pump-
ing jack can be removed and the engine run inde-
pendently.

36-Z-329. Monarch direct connected pumping
outfit with 1½ h.p. engine and single gear pump
jack, height 20 in., 3¾ in. bore, 3 in. stroke, 18 in.
flywheel, 5x5 in. pulley, wt. 360 lbs. **\$60.00**

36-Z-330. Monarch direct connected pumping
outfit with 3 h.p. engine and double gear pump
jack, height 22 in., 4¾ in. bore, 6 in. stroke, 21 in.
flywheel, 10x6 in. pulley, wt. 550 lbs. **\$95.00**

FREE TRIAL! Guaranteed Forever!

Whether you pay cash in full for your Monarch
Engine or buy it under the conditions of our three
payment plan, we will gladly send it to you on trial
—our sole object being to satisfy you with your pur-
chase.

We insist that you be satisfied in every way with
your Monarch Engine before we will consider the
transaction closed. If you do not find the engine we
send you to be exactly as pictured and described in
these pages, or if for any reason whatsoever you are
not satisfied, your money, including all transportation
charges, will be returned without any question
or quibble. Monarch Engines in all sizes as described
on these pages are guaranteed by us to give you the
satisfaction you have a right to expect, and if at any
future time you find your engine to be defective in
material or workmanship, we will cheerfully send
you repair parts to place your engine in perfect con-
dition—replace the engine with a new one or hand
you back any amount of money you have paid us.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

See Our Hardware Bargains in This Book!

Original FORD Power Attachment



Sold Everywhere for \$30.00

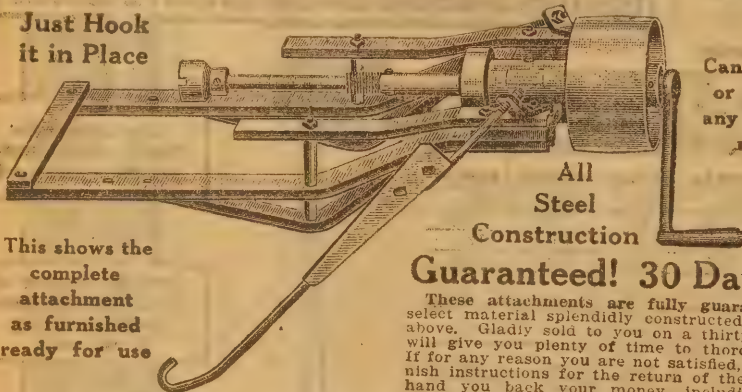
During This Sale Yours for—**\$15⁷⁵**

36-Z-369—A limited number of these splendid Ford power attachments are offered now at this big price reduction. Let your Ford automobile furnish the power for all your work about the farm. This attachment can be shipped into place—ready to operate your corn sheller, pump, ensilage cutter, concrete mixer, washing machine or other machinery requiring from 1 to 15 h.p. Put on or taken off any Ford automobile in a moment, requiring no wrenches, bolts, screwdriver or tools. Can be operated by anyone who runs a Ford car just the right speed. One drive pulley size 4 1/2 in. crown face, 7 1/2 in. diameter. All steel construction with channel steel frame, weight about 50 lbs.

Sale price, each.

\$15.75

**Just Hook
it in Place**



This shows the
complete
attachment
as furnished
ready for use

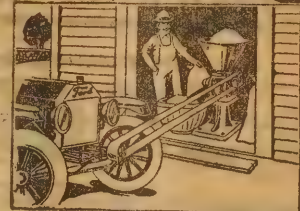
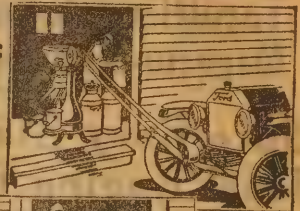
Can be put on
or taken off
any Ford in a
moment

All
Steel

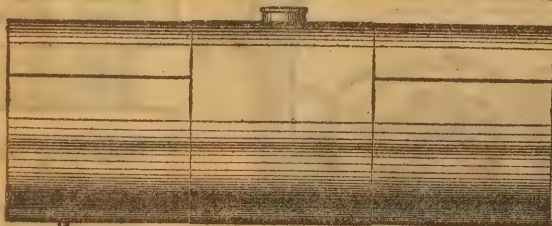
Construction

Guaranteed! 30 Day Free Trial

These attachments are fully guaranteed to be made of select material splendidly constructed and just as described above. Gladly sold to you on a thirty day free trial, which will give you plenty of time to thoroughly test and try it. If for any reason you are not satisfied, we will cheerfully furnish instructions for the return of the Ford Attachment and hand you back your money, including any transportation charges you have paid.



A Great Purchase of NEW STORAGE TANKS



**Electric Welded—Solid and Tight
For Storing Gasoline, Kerosene, Oils, Etc.**

10,000 Gallons to 20,000 Gallons

The recent big purchase brought us a limited number of these high grade new storage tanks from one of America's leading tank builders. These tanks have flat heads with manhole in shell. 2 in. openings in bottom, about 18 in. from each end. Shell and heads 3/4 in. steel plate. Electric welded joints.

Size 10 ft. 6 in. diameter, 15 ft. 6 in. long, about 10,000 gallons.

Size 10 ft. 6 in. diameter, 18 ft. 6 in. long, 12,000 gallons.

Size 10 ft. 6 in. diameter, 23 ft. 6 in. long, 15,000 gallons.

Size 10 ft. 6 in. diameter, 31 ft. 2 in. long, 20,000 gallons.

Write for low quick sale prices.

SMOKE STACKS

Just now our stock of smokestack is complete in all sizes from 6 in. to 84 in. diameter. Recent big purchase has brought us a number of self supporting smokestacks in all sizes.

When we buy big complete plants, we usually receive a smokestack and boiler room equipment. They are carefully overhauled, and painted with black mineral paint, and prepared for years of further service.

We can furnish smokestack, boiler breechings, smoke boxes and extensions in any size and shape required.

When requesting information on smokestack, specify whether you wish the plain or round stack, same diameter at base and top. If a tapered stack is wanted, or a stack with round or oval base, or umbrella top, an additional charge is made.

Ventilating Pipe

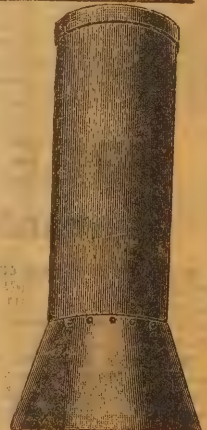
10,000 feet of 18 in. 18 gauge ventilating pipe.

16,000 feet, 30 in. 18 gauge ventilating pipe.

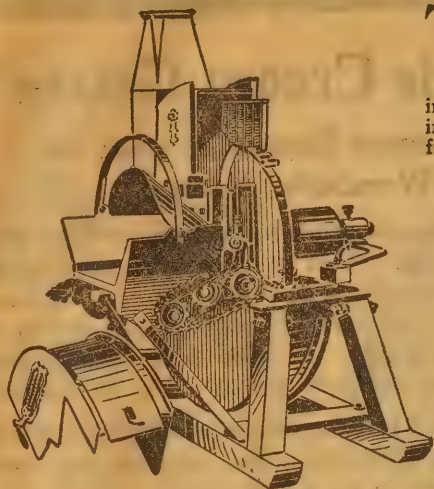
This material came to us along with the big purchase of Government material, and is now offered at low quick sale prices.

Spiral Riveted Pipe

15 carloads of 20 in. diameter spiral riveted steel pipe, suitable for culverts, smokestacks, etc., made of 10 gauge steel. Send us a list of your requirements and ask for our money saving prices.



Rumely Advance Ensilage Cutter



The above cut shows the simplicity of the Rumely Advance Ensilage Cutter and gives an idea of the accessibility of all parts when the cover is removed. Note the sure-acting safety device and the provisions for a strong, solid machine throughout.

THE Big Complete Silage Cutter, all mounted complete on Steel Horse Trucks. Rumely Advance Silage Cutter is equipped with dependable sure-acting safety device. Can be fed from either side without any change whatever. The starting, stopping and reversing of the carrier can be done from one side or the other with equal ease. An iron yoke is placed directly over the hopper, extending from one side of the feed opening to the other. One end of this is connected with a clutch collar and bevel gear arrangement in such a manner that it can be used as a lever to start, stop, or reverse both the chain carrier and the feed rolls. The Advanced Safety Cutter is equipped with one of the best sure-acting Safety Devices; in fact, is the pioneer machine of its kind to be so equipped.

There are four cutter knives used in the Advance Silage Cutter. These are straight, efficient and strong. The chain carrier conveys the material that is to be cut into the feed rolls. It is made of hardwood slats, placed close together, so that no litter can drop between them. The slats are firmly riveted to a double sprocket chain.

The lower half of the drum case is made of heavy steel, being securely riveted, it adds strength in itself and gives support to the cross pieces. This heavy drum wears longer and being almost impossible to penetrate, it serves as a protection, if any foreign article gets into the machine.

The delivery pipe is made of No. 22 galvanized steel, 8 inches in diameter.

On each end of each section, a malleable iron ring is fixed. Each ring has eight holes. Only four of these are used at a time for bolting the sections together—the other four are provided, so that the pipe can be twisted around, as desired, to turn the distributor in any direction.

The delivery pipe is made light, so that it can be put up readily. It is made strong, so that it cannot easily be bent out of shape nor worn by the friction of the silage.

The delivery pipe used with the Advance Silage Cutter is not only smooth inside, to reduce friction; it is also made practically air tight, so that none of the force of the blast is lost on the way—it is all used to carry the silage to the top of the silo. The top of the distributor hood is reinforced by a steel sheet, where the silage strikes it with greatest force in being deflected. This sheet resists the great wear at this point.

Specifications are as follows:

Height of Cutter.....	46 inches
Height of Feeding Table.....	46 inches
Width of Throat.....	15 inches
Capacity of Throat in sq. inches.....	90 inches

FAN CASE OR DRUM DIMENSIONS

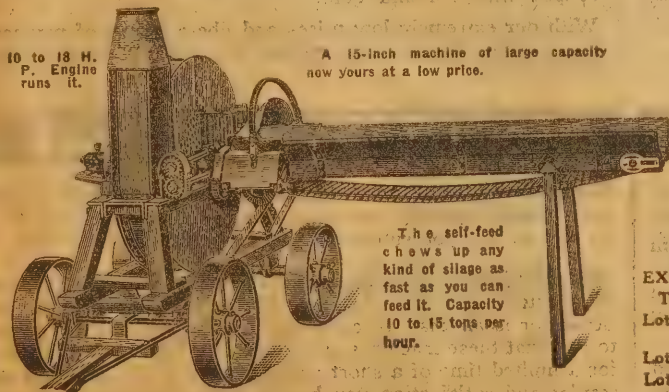
Diameter inside.....	46 inches
Width inside.....	9½ inches
Clearance between fan and case.....	½ inch
Gauge steel used for rim.....	No. 10
For sides.....	No. 12

FRAME

Size of angle iron.....	3½x3½x¾ inches
Size of wood sills.....	4x3¼ inches

DELIVERY PIPE

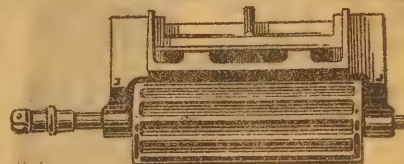
Diameter.....	8 inches
Made of steel gauge galvanized iron.....	No. 22



10 to 18 H. P. Engine runs it.

A 15-inch machine of large capacity now yours at a low price.

The self-feed chews up any kind of silage as fast as you can feed it. Capacity 10 to 15 tons per hour.



The Sure Grip Feed Rolls of the Advance Cutter.



KNIFE DISC

Weight complete.....	375 lbs.
Diameter.....	34 inches
Thickness.....	1¼ inches
R. P. M.....	600 to 900

KNIVES

Number furnished.....	4
Width.....	3¾ inches
Length.....	18½ inches
Thickness.....	¾ inch

DIMENSIONS OF TRUCK

Diameter of wheels.....	22 inches
Width.....	3 inches
Length of hub.....	6 inches
Width of wheel track.....	57 inches

Equipment includes:—

Distributor hood for top of delivery pipe.
Feeding platform 30 inches wide and 6 ft. long, and
Galvanized delivery pipe, as follows:

- 2-8 ft. sections
- 1-6 ft. section
- 1-4 ft. section
- 1-2 ft. section of 8-inch, 22 gauge galvanized pipe.

Price complete as above.

\$175.00

EXTRA EQUIPMENT

The following extras will be furnished at the prices noted:

Lot No. 36-Z-208. Hopper for end of distributor, when distributor section is used.....	\$2.50
Lot No. 36-Z-209. Inside distributor section, 30 inches long.....	1.00
Lot No. 36-Z-210. Extra blower pipe, per foot.....	.50

The World's Best Cream Separator

With All Latest Improvements!

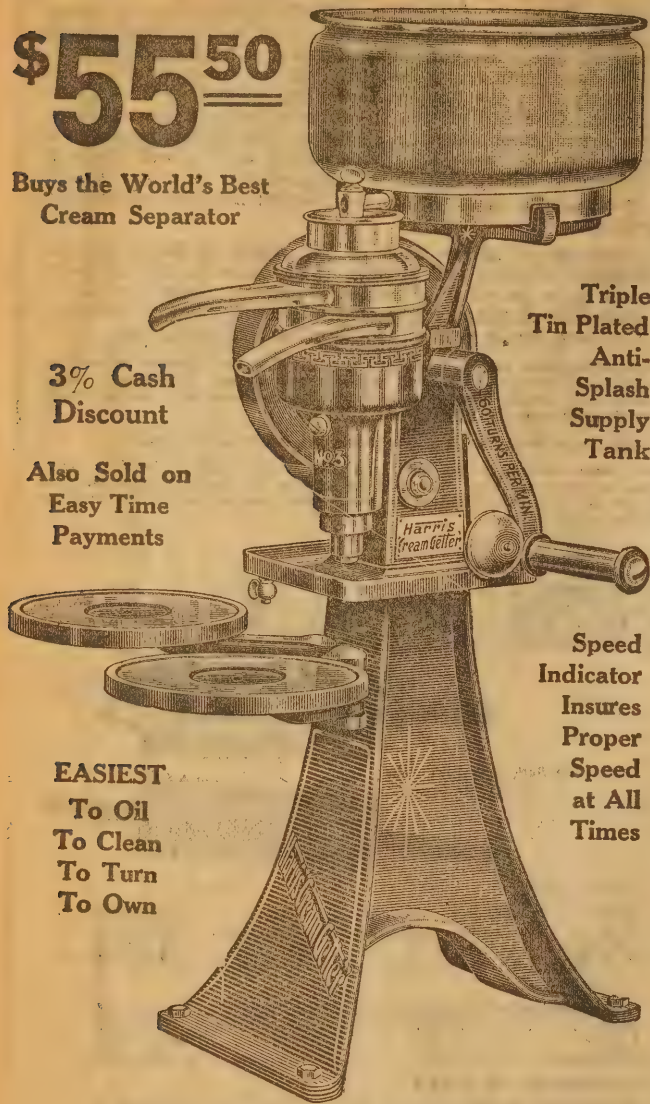
\$55⁵⁰

**Buys the World's Best
Cream Separator**

**3% Cash
Discount**

**Also Sold on
Easy Time
Payments**

**EASIEST
To Oil
To Clean
To Turn
To Own**



**Triple
Tin Plated
Anti-
Splash
Supply
Tank**

**Speed
Indicator
Insures
Proper
Speed
at All
Times**

Harris Cream Getter No. 3
Capacity 375 lbs. Per Hour

"Harris Cream Getter"

**The Cream Separator with the
Wonderful Record**

You can buy this Separator now on its record for complete satisfaction. Never have we handled an article which has made such a wonderful record. We have shipped them in all sizes, all seasons of the year to all parts of the country. "Cream Getters" have met every farm test and have been found as represented.

This is the latest model produced by expert Separator builders in one of the finest, best equipped, and most modern factories in the world.

Easiest to Handle

Only one tool is required in the daily handling of the Cream Getter, and that is the spanner part of the combination wrench. All other parts are assembled by hand. Lubricated by an oil splash system which never fails or goes wrong.

Exclusive Patented Improvements

The most important exclusive improvement, and one that makes the Harris Cream Getter stand apart from all other separators is the patented equal milk distributor. This is a simple little sleeve placed in the very "heart" of the machine. It distributes equal portions of whole milk to all parts of the bowl, thereby insuring quick, and clean skimming.

In the splendid construction of the Harris Cream Getter is also embodied the patented safety clutch, straight faced worm gear, patented neck bearing spring. All shafts, bearings and parts subject to wear are made of the very best material obtainable for their purpose, thereby insuring long life and easy operation.

It is equipped with an anti-splash supply tank, speed indicator and metal bushed handle. All parts coming in contact with the milk are triple tin plated.

The frame castings are smoothly ground and heavily coated with hard, glossy navy blue enamel, baked on; artistically striped with red and gold.

With our extremely low prices and liberal terms of payment you cannot afford to be without the Harris Cream Getter another day.

Unlimited Guarantee!

We guarantee the Harris Cream Getter Cream Separator to be the best you can buy regardless of name, price or make.

We guarantee that if, after you get the Cream Getter, within reasonable time you find you can get any other make at any price which is better according to capacity, we will give you return shipping instructions and refund all of the money you have paid us on the Cream Getter, plus freight charges.

We guarantee the Separator against defects in material and workmanship as long as it lasts and that we will supply repair parts should any ever be needed.

Most Liberal Trial

Regardless of whether you send cash in full with order or buy your machine on easy time payments, your Harris Cream Getter will be sent you subject to trial for any reasonable time.

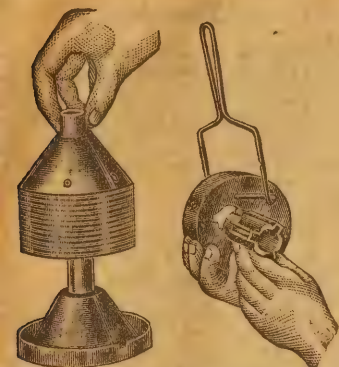
This most liberal of all Trial Offers must convince you, beyond all question of doubt, that any Harris Cream Getter Cream Separator is all that we claim for it. This will further prove to you that these machines are not merely built to do the work for a limited time of a short trial period, but will give you the service and satisfaction you have a right to expect for many years.

Further Description and Prices on Following Pages

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

-and the Greatest Offers Ever Made!

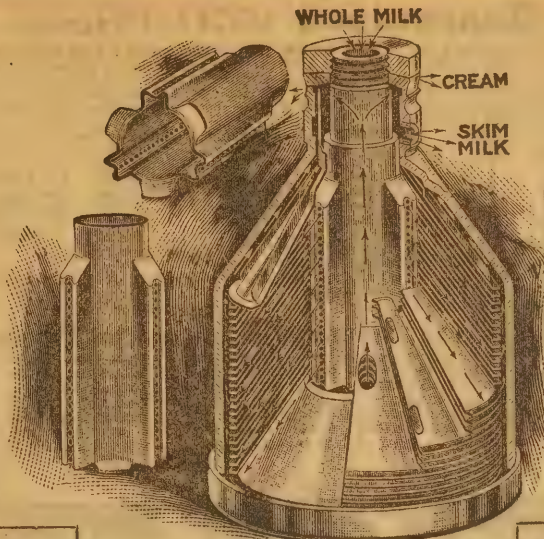
Exclusive Patented Features Everywhere!



The discs and distributing sleeve are handled as one single piece. By lifting the disc and sleeve from the bowl, every surface coming in contact with the milk is fully exposed and easily cleaned.



The above illustration shows the method of inserting the patented equal milk distributing sleeve in the disc. It is simply slipped into place so that all discs can be handled as a single unit.



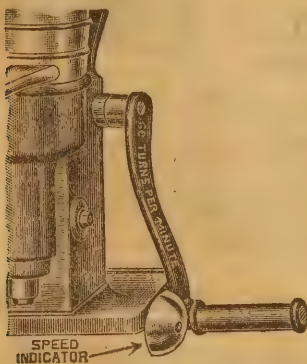
These Two Parts of the Harris "Cream Getter" Machines Are Carefully Made and Far in Advance of Any Other Construction.



After the machine is started, this Patented Elliptical Neck Bearing Spring automatically regulates the bowl to rotate on a positive center. It allows the bowl freedom of motion without wear to any surface.

Detachable Sanitary Bowl Easily Lifted Off of the Spindle for Washing. The inside of the bowl is as easily cleaned as the inside of a tea-cup, being covered with three coats of tin and smoothly finished.

Alarm Bell Speed Indicator



It is important and very convenient to know when your machine is running at just the right speed to get maximum results from your Cream Separator. This simple speed indicator bell attached to the handle of all "Harris Cream Getter" Separators will promptly remind the operator when the machine is not running at the correct speed. This attachment, like all other important improvements, is exclusive with "Harris Cream Getter" Machines.

The Exclusive Patented Equal Milk Distributor

An ingenious device that sets the Harris Cream Getter apart from all other separators on the market today. It is placed in the "heart" of the machine and distributes the whole milk to all parts of the bowl, serving all discs equally and efficiently. The same capacity is now maintained with one-fourth less discs than are used in old style bowls. It prevents the loss of cream and does the work more quickly and easily and insures clean skimming.

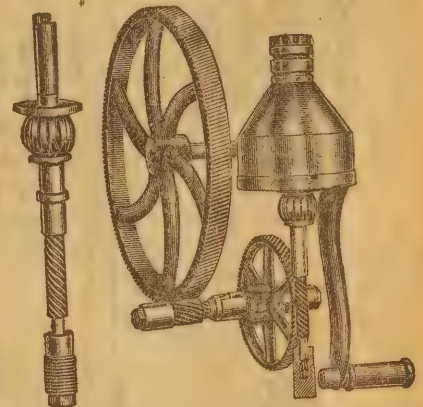
The right hand portion of the above cut is a phantom view of the bowl and illustrates importance of the Exclusive Patented Equal Milk Distributor.



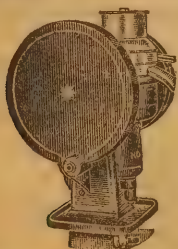
Noiseless Safety Clutch

Prevents any possibility of injury to the gearing; positive and automatic in action. Made of finest steel, unbreakable and perfect in operation. Illustration shows the clutch disengaged as when the driving gear is stopped and the bowl continues to spin without further work from the operator.

The Improved Gearing in the "Getter" Cream

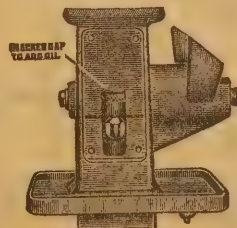


Showing the simple perfected gearing and clutch. The large gear and pinion are cut with helical teeth, thus guaranteeing quiet running, and ease of operation. The worm wheel is of the best grade of phosphor bronze, cut with helical, straight-faced teeth, insuring the longest possible life by being able to adjust the wheel to different positions after years of service. The pinion and entire clutch is made of the very best grade of steel, properly hardened. The spindle is of the highest grade of tool steel and ground absolutely to size.



Enclosed Safety Gear

The large Gear is completely enclosed, eliminating accidents and preventing dust and dirt from getting into the gearing. The Oil Drip Shelf with Drain Faucet prevents oil or spilled milk dripping on floor.



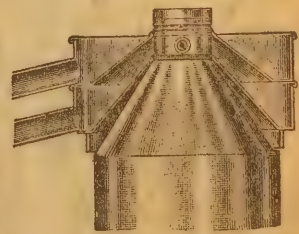
Glass Oil Gauge

No dirt-clogged oil holes to deal with. All parts are perfectly lubricated, receiving a steady, economical supply of oil from the centrally located oil supply. Note the glass oil gauge which indicates the oil supply at all times.



Easily Cleaned

A convenient non-rusting disc holder is sent with all machines. This holder allows the discs to come apart and makes it easy to get between them for thorough cleaning.



Cross Section

Here is a cross section of the cream and milk spouts as they are placed above the bowl. A feature of Harris Cream Getter Separators is found in the triple tin plated parts.

The Easiest Cream Separator to Own!

Most Liberal Terms and Low Prices!!

Plan No. 1

THREE PAYMENTS— $\frac{1}{3}$ with your order and balance in two long-time payments.

Send us one-third of the price with your order, the balance to be paid in two equal payments— $\frac{1}{3}$ in 2 months; balance in 4 months. Under this plan we are forced to make a slight additional charge of \$2.50 for exchange and bookkeeping.

Plan No. 2

Purchase price to be deposited with your banker for 30 days.

Send with your order a letter from your banker that the purchase price is deposited with him to be sent to us after you have convinced yourself. 30 days should give you sufficient time to make up your mind.

Guaranteed 1921 Prices

You can't buy a Separator of similar design and weight and approximate quality as cheaply as the "Cream Getter". We can afford to sell them at these low prices because the record each "Cream Getter" makes will cause sales of other Separators. Prices include all accessories F. O. B. Lancaster, Pa., Chicago, or St. Paul, Minn., Warehouses. See next page for Power Pulley equipment.

Order Number	Size Number	Capacity Per Hour	Shipping Weight	Introductory Prices	
*27-Z-100	1	175 lbs.	80 lbs.	\$34.95	
*27-Z-200	2	250 lbs.	85 lbs.	38.90	3% Discount
27-Z-300	3	375 lbs.	170 lbs.	55.50	for Cash in
27-Z-500	5	500 lbs.	175 lbs.	59.95	Full with
27-Z-700	7	750 lbs.	225 lbs.	68.00	Order
27-Z-900	9	950 lbs.	230 lbs.	75.00	

Equipped with Multiple-Disc Clutch Pulley, \$8.00 extra.

Equipped with Electric Motor, \$55.00 extra.

Be sure to state Voltage, and whether Alternating or Direct Current.

* Indicates Table Size.

Your Old Cream Separator Taken as Part Payment

Here is your one big opportunity to rid yourself of that time, labor and cream wasting machine you are now using. We will take your old separator off your hands and accept it as part payment, allowing you a liberal amount toward the purchase of your Harris "Cream Getter." Be sure to mention the make, capacity and condition of your old machine and the size of the Harris "Cream Getter" which seems to meet your requirements. You need not send us your old separator until you try your new Harris "Cream Getter."

Plan No. 3

Cash in full. This secures for you an additional saving of 3%. Everyone knows that a better price can be made if a full remittance is made with the order. We allow a discount of 3% for remittance in full before shipment. Get the benefit of this extra saving. You are protected by our unlimited guarantee.

Plan No. 4

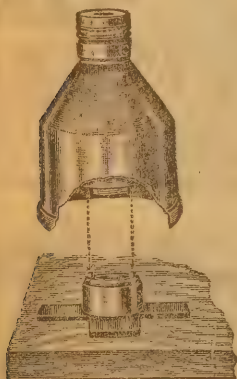
Name your own terms if for any reason the above do not suit you.

We cannot judge the circumstances of all who need "Cream Getters." If other plans do not suit, send your order with a first payment of what you can spare; then state how you wish to pay the balance of Plan No. 1 price.

Table Size Harris Cream Getter Separators!

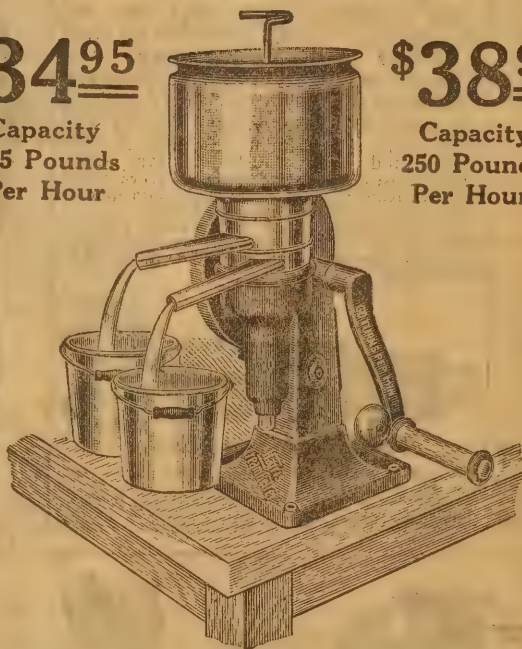


With each Harris Cream Getter Separator we furnish one quart of the finest lubricating oil in a can with convenient spout. This oil is also sold separately. 9-Z-10819, Guaranteed Separator Oil. Quart, 35c; gallon, \$1.25.



The above illustration shows the bowl vise which is furnished with each machine. This vise is securely attached to your table top, its purpose being to grip the bowl when taking it apart. No matter how tight the nut is fastened, it is a simple and easy task to loosen it with the aid of this vise.

\$34⁹⁵
Capacity
175 Pounds
Per Hour



\$38⁹⁰
Capacity
250 Pounds
Per Hour

The table size "Harris Cream Getter" separators are intended for the dairy where not more than three cows are being milked. These little machines do splendid work, getting all of the cream—the only requisite being that they be attached to a solid, rigid table.

The same exclusive patented features found in the larger sizes will be found in these machines. The same high grade tinware, triple coated to prevent corroding—the anti-splash tank—the exclusive patented equal milk distributor—the gearing and general high grade construction of "Harris Cream Getter" machines has been carefully carried out in these two small sizes.

See the table above for numbers, sizes, capacity and prices of these machines. You can own either of them under our liberal terms.



A spirit level is furnished with each separator. Place it several directions across where the skim milk cover fits. It is necessary that your separator be placed upon a solid level foundation to secure greatest efficiency and the perfect work which any "Harris Cream Getter" separator will give you.



A combination machine wrench, power wrench and screw driver is furnished with each machine. This is the only tool you require to take the different sections of the machine apart and perfectly adjust it. A high grade tool made of best drop forged, properly tempered steel.

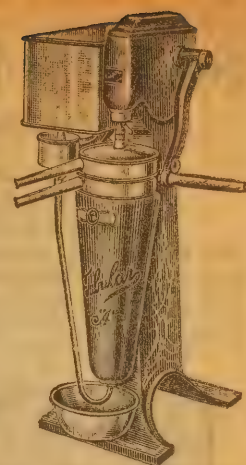


Two cleaning brushes of proper length and size are furnished with each machine which enables you to keep your separator spotlessly clean at all times. These brushes are made of select materials and will last years with ordinary care and usage. To facilitate the handling of the discs, a disc holder of sufficient length is furnished to permit you to spread the discs apart so all surfaces can be thoroughly cleaned.

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

We Have a Few Sharples Tubular "A" Separators Left from Our Gigantic Sale Just Closing!

900 lbs. Per Hour
Brand New with
Harris Clutch Pulley
Now Only \$60.00



Many thousands of our customers recommend the Sharples Tubular "A" Cream Separators to be efficient, easy to clean, easy to oil, and easy to run. Mr. P. M. Sharples, President of the Sharples Separator Co., made the first Cream Separator manufactured in America. The Sharples Separator Co. have been in operation for over 35 years and are well known for the high quality of their workmanship.

The Excellent Principle of Construction and Operation

The tubular bowl has only three parts and is $2\frac{3}{4}$ inches in diameter. This rotates at a high speed, accomplishing complete separation with ease. All gears are inclosed in the top section of the frame and are lubricated by an oil-splash system. There are no oil holes or oil cups to watch or fill up with dust. These gears can all be plainly seen by simply lifting off the gear cover. Anyone can understand how to operate, regulate and repair the separator if necessary from information given in the instruction book.

Low Quick Sale Prices

27-Z-90. Shipping weight 314 lbs., with 14-inch Clutch Pulley.....\$60.00 NET
27-Z-90. Shipping weight 300 lbs., without Pulley.....55.00 NET

Friction Clutch Pulleys for Any Make of Separator

SPECIFY MAKE, MODEL, NUMBER, CAPACITY AND DIAMETER OF CRANK SHAFT

Harris Cone Clutch Pulley \$5.25

This is an exceptionally well designed and constructed pulley. Its simplicity accounts for the very moderate price. Is very easy to place on the separator and simple to operate. By gradually tightening the hand nut, will bring the separator up to normal speed without jerks or undue strain. 14 inches in diameter, $2\frac{1}{4}$ inch crown face. Shipped from Chicago. Weight 15 lbs.

No. 27-Z-125.....\$5.25
No. 27-Z-126 4 inch extension hub.....5.50



The Harris Governor Pulley and Line Shaft Sets

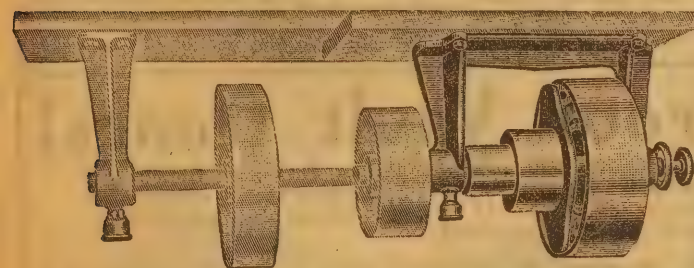


Illustration shows the Harris Governor Pulley connected with line shaft which we designate as line shaft set No. 3. The Governor Pulley as sold separately is shown by the heavy shaded portion to the right.

This Governor pulley will prolong the life of a Separator or other machine. It operates between the power and the machine, regulating speed, absorbing all jerks and irregularities of power, thus saving wear and damage. Made of the best materials obtainable. Nothing to wear out in years of operation. Length, 15 in.; large pulley, 9 in., with 3-in. face; middle pulley, 4 in., and smallest pulley, $2\frac{1}{2}$ in., with $2\frac{1}{4}$ -in. face. Length of bearing, $6\frac{1}{2}$ in.; weight, 40 lbs. Can be attached to side wall or stand. SHIPPED FROM FACTORY IN WISCONSIN.

No. 27-Z-101. Price of Governor pulley without wood base.....\$9.75
No. 27-Z-102. With extension shaft and extra pulley, 6 in. by $2\frac{1}{2}$ in.....\$11.75
No. 27-Z-103. As illustrated set No. 3. Two extra pulleys, 6 in. by $2\frac{1}{2}$ in., and 8 in. by $2\frac{1}{2}$ in. pulley on $1\frac{1}{2}$ in. shaft. Mounted complete on wood base. Length, 4 feet, 4 inches. Weight, 70 lbs.....\$19.50
No. 27-Z-104. Same as above except provided with two 6 in. by $2\frac{1}{2}$ in. pulleys and one 8 in. by $2\frac{1}{2}$ in. pulley on $1\frac{1}{2}$ in. shaft. Mounted complete on wood base. Length, 4 feet, 4 inches. Weight about 110 pounds.....\$25.50
No. 27-Z-105. Same as Outfit No. 104 but provided for still larger range of duty. In addition to the Standard Harris Governor Pulley, No. 5 is provided with two 6 in. by $2\frac{1}{2}$ in. pulleys, one 4 in. by $2\frac{1}{2}$ in., one 8 in., by $2\frac{1}{2}$ in., and one 10 in. by $3\frac{1}{2}$ in., on $1\frac{1}{2}$ in. shaft, all with extra hangers and mounted on substantial wood base. Length over all 12 feet 4 inches. Weight about 160 pounds.....\$36.25

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

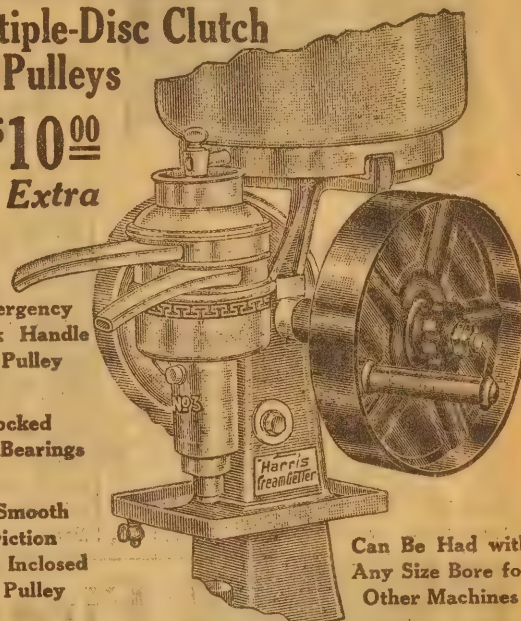
Multiple-Disc Clutch Pulleys

\$10⁰⁰
Extra

Emergency
Crank Handle
on Pulley

Locked
Ball Bearings

14 Smooth
Friction
Discs Inclosed
In Pulley



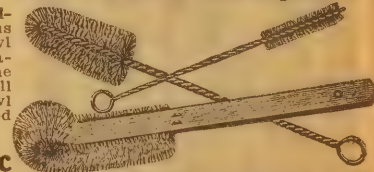
Can Be Had with
Any Size Bore for
Other Machines

This pulley is especially designed for "Cream Getters" and no pains have been spared to make it absolutely perfect. Best to be had for any make of separator. It has 14 small discs, each alternate one with an extension which engages a lug on the inside of the sleeve. When hand nut is loosened, these will slip without turning shaft. Slowly tightening the hand nut will gradually bring the separator up to skimming speed, without strain on the gearing. Extra well made and finished with hub extended $5\frac{1}{2}$ in. Has locked-in ball bearings. Finished to match "Cream Getters." Crank handle to be attached if power fails. 12 inches in diameter. 2-inch face. Weight 24 lbs. \$10.00
No. 27-Z-123. Specify size of bore. Pulley only.....\$10.00

Brush Set 35 Cents For Any Disc Separator

This set comes in a cardboard carton and contains one wood handle, bowl brush for cleaning separator bowl and discs, one spout brush and one small brush for cleaning bowl necks, tubes, etc. Good quality bristles.

No. 27-Z-123, weight 5 oz.... 35c



Cream Separator Repair Parts

Harris "Cream Getters" are guaranteed to you, and we will replace, free of charge, all repair parts which will come within the terms of our guarantee. Either through accident or through honest wear, your separator is bound to need renewal or repair parts at some time. When ordering repair parts give full description as shown in the price list, giving the number, name and price of the part, together with the serial number and size of your separator. If you do not have a price list on hand, describe the parts to the best of your ability or send us in a sample, making sure that you specify the name, serial number and capacity of your separator. Also the date of purchase. Send order for parts with remittance, according to the list price, or estimate what you think the parts would cost. Always be sure to remit enough to include postage, and we will refund the balance in all cases.

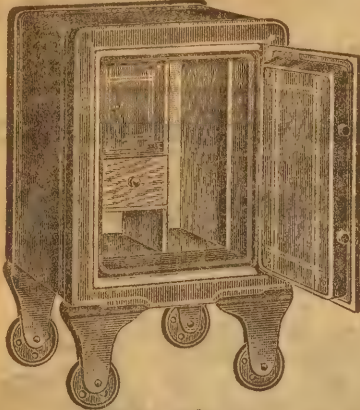
Watts Famous Corn Sheller at Big Price Reductions

SAFES FOR THE HOME AND OFFICE!!

The splendid Safes below offer safety, convenience and life long service in the home or office. They are distinguished from the general run of ordinary safes by their material and workmanship. They are made as nearly as possible of one solid piece of steel without bolts or screws to hold them together. Any selection you make offers a substantial saving from the regular market.

We feature the three safes below as the most popular models used in the average home and office. Read carefully the arrangement and details of specifications. Guaranteed to be of best construction and finished strong and substantial.

We will print the name of purchaser over the door of safe in shaded gold letters, in a neat design, without extra charge upon request. Be sure to specify plainly the name you wish lettered upon the safe you order to avoid mistakes in spelling or arrangement.



\$35²⁵

16-Z-10. Made with welded corners, smoke and fireproof; tongued and grooved interlocking flanges. Fitted with celebrated Yale Combination lock, convenient in interior arrangement, recommended for the home or small office. Fitted with one Book Space, 12" high, 4" wide. One Sub-Treasury compartment, 5½" high, 4½" wide. One Drawer, 3" high, 4" wide, one Pigeon Hole 2½" high and 4" wide. Outside height 23½", width 14½", depth 14".

Approximate weight.....190 lbs.

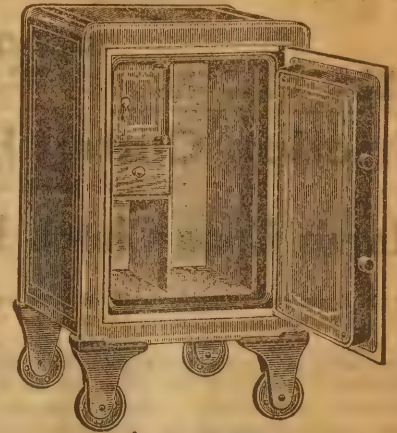
Our Special Double Door Large Capacity Safes

\$65⁰⁰

Fitted Complete With Yale Combination Lock and Improved Interior Arrangement

16-Z-35. If you require a Safe of larger capacity, this is just the safe you want. Fitted with celebrated Yale Combination Lock, tongued and grooved interlocking flanges, welded corners, smoke and fireproof. The cabinet arrangement has one Book Space 18½" high, 9½" wide; one Sub-Treasury 5½" high, 4½" wide; one Lock Drawer, 3" high, 4½" wide; one Pigeon Hole 3" high, 4½" wide; one Book Space 6½" high, 4½" wide. Outside height, 30½"; width, 20"; depth, 20". Approximate weight.....470 lbs. Price above includes inside door with secure key lock. Can also be furnished without inside door.

\$61.35



\$47⁵⁰

16-Z-28. As a protection against theft, smoke and fire there is no other safe manufactured that offers a better assurance to the safety of your valuables than this one. Made with tongued and grooved interlocking flanges, with welded corners. Fitted with celebrated Yale Combination lock. The interior is arranged with one Book Space 16" high, 6" wide; one Sub-Treasury 5½" high, 4½" wide; one knob drawer 3" high, 4½" wide; one Pigeon Hole 6½" high, 4½" wide. Outside height 27", width 16", depth, 16½".

Approximate weight.....280 lbs.

Fire-Proof Vault Doors!

Made for use in Court Houses, Banks, Offices, Insurance Companies, Post Offices or any place where Fire Proof Safes have been installed. Increase Your Return on any new or old building. Tenant always looks for a place of protection for valuable documents.

Dimensions: Inside clearance 28x74 inches; made to fit an 18-inch wall. Opening in wall to receive vault, 32x77 inches. Approximate weight, 600 pounds.

The door of this vault is hung on two strong hinges and fitted with a 2x2x¼-inch steel angle around the entire edge; the door plate being made of 10 gauge steel. The angle is fitted with three cross bolts made of 1-inch cold rolled round steel and securely locked with a Yale Combination Lock. The inner doors are made double of 10 gauge and 14 gauge steel welded together, having up and

down flat bolt work, securely locked with a flat key lock.

The rear flanges are so made that frame can be unscrewed, the vault placed in position, leveled, fitted and tried so that the bolt and locks work perfectly, then all crevices can be filled up and cemented, the rear flange screwed back and the vault will be ready for use. By making the flange on the rear of the vault in this manner, the building can be completed and vault placed in position without being marred.

Lot No. 16-Z-10. Brand New \$130.00
Vault Door.....

Overhauled Vault Doors and Safes!!

We have on hand at all times a variety of overhauled vault doors and safes. They are in first-class overhauled condition in every way, painted and all working parts put in the best condition. The handle and dial are re-nickelled—will make a very imposing fixture to any office. We have such makes as Hall, Diebold and Harris, all of which are standard on the market. Send us your inquiry, and we will furnish you complete detailed description and lowest prices.



This is but one of many standard styles in our big complete stocks. We are constantly receiving vault doors of every description in connection with our purchases of complete plants. Let us know your needs.

Reliable Auto Accessories

Radiators for Ford Cars



Brass Core

\$1875

Latest pattern honeycomb radiator for Ford cars—same design as built by the Ford Motor Co. Large water capacity and cooling surface guaranteed to keep your engine cool under most severe conditions. The core is flexible, allowing for expansion in case of freezing—water thawing gradually, which prevents bursting. All parts of core which come in contact with water are made of brass; radiator casing made of heavy wrought steel, finished in black Japan. Securely packed in wood box; weight 40 lbs.

- 4-Z-1507. Radiator for Ford cars built from 1909 to 1916. Each... \$18.75
- 4-Z-1508. Radiator for Ford cars, 1917 and 1918 Models. Each.... \$18.75

Harris Spark Plugs



Junior
40c



Giant
75c

STOP
SPARK PLUG
TROUBLES

After careful investigation and tests of the most trying and severe kind, we discovered the perfect spark plug. The specially selected, carefully blended clay used in the porcelain cores offer greatest possible resistance to heat, vibration and oil. They cannot chip or crack. Will not leak or short circuit. Quickly and easily cleaned. Two types, Giant and Junior—five sizes in each type.

There's a Harris Spark Plug in Stock for Any Automobile, Truck, Motorcycle, Tractor or Gas Engine Ever Built!

We guarantee "Harris" spark plugs indefinitely to give you best service under all conditions. We will replace, free of charge, any "Harris" plug returned to us that fails to completely satisfy you.

- 4-Z-1500—Junior Plugs, each.....40c
- 4-Z-1505—Giant Plugs, each.....75c

Give size of plug and make of motor.

Combination Radiator Shield and Hood



For Ford Cars

4-Z-1506. Made especially to convert 1915 and 1916 Ford cars into the latest models, giving them a modern streamer line effect. The shield adds to the appearance, covering the springs and other unsightly parts. The radiator is equipped with the improved honeycomb core; practically indestructible; all parts coming in contact with water made of brass. Guaranteed to cool the engine. The hood shield and radiator shell or casing are made of heavy wrought steel, finished in black Japan; the honeycomb brass core in gray. Securely packed, weight 60 pounds. Price, complete\$25.00

Best Auto Signal THE "STARTLER"


The starter signal for automobiles and trucks gives a sharp, clear warning. It is positive in action—prevents accidents. This splendid signal is the only vapor signal that acts when your machine is standing still and your engine running idle. Quickly and easily attached on any cylinder in place of a cup. Unusually well made and nicely finished. It is operated from a control cord which is run from the signal to the steering column. Especially valuable in traveling on country roads on account of its distinctive tone, so different from the average signal.

4-Z-976. Automobile signal. Each.....\$2.95



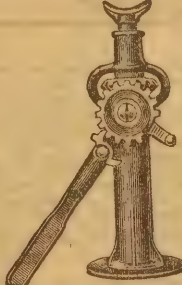
\$2.95

HIGH GRADE AUTO JACKS



\$1.60

Guaranteed
Strong
and
Durable



\$2.00

4-Z-977. A carefully designed jack for light weight cars quickly and easily adjusted to different heights by spinning the top gear. Only four working parts; self locking at any point; three sizes.			
Capacity	Height Lowered	Height Raised	Price
2,000 lbs.	8 in.	12 in.	\$1.60
2,000 lbs.	10 in.	16 in.	1.70
2,000 lbs.	12 in.	20 in.	2.10

4-Z-971. Designed for speed. The crank mechanism on side gear does away with pumping when raising or lowering the rod. Strong and well made; nicely finished; three sizes.			
Capacity	Height Lowered	Height Raised	Price
4,000 lbs.	8 1/2 in.	14 in.	\$2.00
3,000 lbs.	10 1/2 in.	18 in.	2.25
6,000 lbs.	12 in.	20 in.	3.40

Grease Cup Wrench

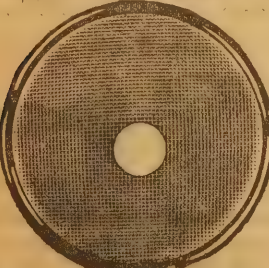


Finely Made

40c

4-Z-1509 A simple, inexpensive wrench that will prove to be the most handy article in your tool box; made of nickel-plated steel. Fits every auto grease cup made—all sizes and types. Needs no adjusting. With this wrench you can turn your grease cups easily and quickly without soiling your hands or clothes. Price, each.....40c

Anti-Glare Auto Lenses



All Sizes

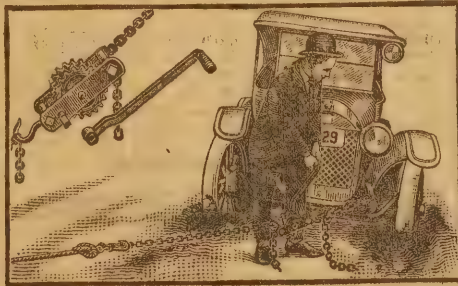
95c Pair

Flood the road ahead for 600 feet in front of your car with a strong but softened light, revealing everything on either side at a distance of 30 feet.

An extra fine lens with 2,000 prisms cut on the inner side with a "bull's eye" pointing down just below the center, shooting a clear ray of light downward. The outside surface is smooth—proof against dust, mud, rain and snow.

5-Z-1511. Sale price (give exact diameter of your present lenses), per pair...95c

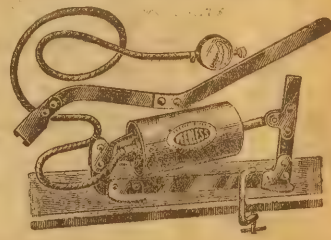
HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.



AUTO LIFTOUT

4-Z-978. This simple device will prove to be the most necessary and important part of your equipment. On the road and in the garage, it is dependable, quickly and easily adjusted. Will lift your car out of the deepest ruts. Offers a splendid garage hoist, enabling you to raise your car to any convenient height for working underneath. The leverage afforded by the patented construction enables you to move or lift a car of any weight with little exertion. Furnished complete with 8-ft. pulling chain and 4-ft. anchor chain with hooks. Self locking. Price.....\$20.00

Auto Tire Pump



4-Z-1510. Quick acting auto tire pump; can be attached to the running board of any machine. Durably constructed; guaranteed for the life of your car. Each pump is equipped with gauge, indicating the power pressure. Detachable handle; will fit in a small tool box. Nicely finished in red and black Japan, two coats baked on. Complete without gauge. Price, each.....\$4.75

Paint? Ask for Our New Color Card!

HOSE FOR ALL PURPOSE USE!

Water Hose for General Purposes

3-Z-39. This is a high grade hose and a better quality than used for lawn and sprinkling purposes. It is made to stand hard usage. We furnish it in lengths of 5, 10, 15, 20, 25, 30, 35, 40, 45 and 50 feet. Prices do not include couplings.

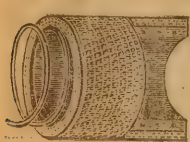
Inside diam., in., 1, 4-ply	.....	\$0.32
Inside diam., in., 1 1/4, 4-ply	.....	.39
Inside diam., in., 1 1/2, 4-ply	.....	.48

High Grade Steam Hose

3-Z-40. This is an extra high grade hose, the inner tube of which is specially compounded to resist the action of heat. Walls are made of heavy duck and guaranteed fully in every particular. Furnished in multiples of 5 ft. only up to 50 ft.

Inside Diameter Inches	4 Ply for 35 lbs. steam or less		5 Ply for 50 lbs. steam or less		6 Ply for 75 lbs. steam or less	
	Per Ft.	Per Ft.	Per Ft.	Per Ft.	Per Ft.	Per Ft.
1/2	\$0.35	.....	\$0.45	.....	\$0.53
3/445	.....	.53	.....	.65
153	.....	.63	.....	.78
1 1/465	.....	.80	.....	.96

Red Woven Cotton Covered Suction Hose



3-Z-45. This is a smooth bore hose and is non-kinkable. Owing to the heavy woven cotton cover this hose will stand the hardest usage and will outwear any other suction hose manufactured. Has enlarged soft rubber ends to fit over 2 inch tank pump connection, and is sold in lengths of 10, 15, 20 and 25 ft. Size inside diameter:

Inches	.....	1/2	1	1 1/4	1 1/2
Price per foot	.....	51c	56c	65c	77c 90c



Moulded Hose

This hose is of Seamless Construction; every strand of cotton is continuous and there are no seams in either cotton or rubber. Being moulded under high pressure both internal and external, it does not kink. Made with corrugated rubber cover, thick durable tube and two separate and independent braids of hard twisted cotton, between which is a distinct layer of rubber. Will stand a pressure of 100 to 125 pounds. Furnished in 25 and 50 ft. lengths with 3/4" couplings. We can also furnish this hose cut to any length desired at 17c per foot; couplings extra, 35c per set.

Lot No. 3-Z-37	1/2 in.	\$4.30	\$8.20
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Two Inch Tank Suction Hose

3-Z-46. This is the regular standard Thresherman's Suction Hose, with steel wire inserted in walls to prevent collapsing. Has large rubber ends and will fit over 2 inch tank pump connection. Sold in lengths of 10, 15, 20 and 25 feet only. Size inside diameter 2 inches.

Price per foot	48c
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Hose Clamp

Galvanized Wrought Steel

3-Z-57. Order clamps same size as diameter of hose, except for 2-inch tank hose, which requires 2 1/2-in. clamps.

Size hose inches	Price each	Size hose inches	Price each
1/2	1 1/2	.....
3/4	2	.....
1	2 1/2	.....
1 1/4		

Hose Reels

3-Z-47. The use of a reel is recommended, as it drains the hose when winding in; also prevents the unnecessary wear. Be sure and order a reel with your hose.

Are oil finished, hardwood frame, iron wheels, capacity 100 feet of 3/4" hose.

Price each	\$2.25
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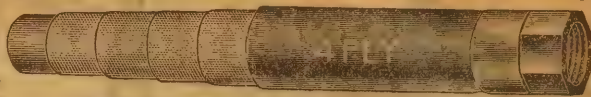


Garden Hose Priced Low

All High Grade Brand New Stock—Guaranteed to Satisfy

25-ft.
Length

\$3.40



4-PLY GARDEN HOSE

This hose is very good for light pressure, made with the best quality rubber seamless inner tubing, closely woven, long fibre cotton duck layer or plies with heavy rubber coating between each ply. The outer coating is of heavy rubber and of the same thickness as used on our better grades of hose.

Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-Z-33	3/4"	\$3.40	\$6.40

5-PLY GARDEN HOSE

We advise the use of this grade of hose for ordinary pressure. It is made in the same general manner as our 4 ply Hose, but the plies are heavier, making a stronger and more durable hose, which is less liable to bend or kink. With reasonable care, will last two or three seasons.

Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-Z-34	3/4"	\$3.65	\$7.00

6-PLY GARDEN HOSE

One of the best grades of garden hose made. Built for heavy pressure. The plies are made of heavier cotton duck than used in our other hose. The inner tubing and covering are made of the highest grade of rubber used for this purpose.

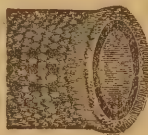
Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-Z-35	3/4"	\$4.30	\$8.20

7-PLY GARDEN HOSE

This hose is the very best grade made. It is 7 plies of firmly woven fabric vulcanized together with a very high grade cement and an outer covering of rubber. This is generally demanded where a high grade hose is appreciated. We recommend it for any service and for the highest pressure.

Lot No.	Size, In. Dia.	Size Couplings	Price, 25 feet.	Price, 50 feet.
3-Z-36	3/4"	\$4.65	\$8.90

Braided Cotton Covered Rubber Lined Garden Hose



3-Z-38. The jacket is made of the most carefully selected Sea Island cotton of long fibre and woven very heavy and close; intended to resist hard usage. The tube is made of the finest "Para" rubber. This hose is guaranteed to give good service and to be satisfactory in every respect. It is in every sense a strong, durable and lasting hose. We offer but one grade and that is the best, suitable for heavy pressure. Price includes 3/4" couplings. Furnished only in 25- and 50-foot lgths.

Size inside diameter	Price, 25 ft.	Price, 50 ft.
3/4-inch	\$4.35	\$8.35

Cotton Rubber Lined Fire Hose



3-Z-42. For fire protection purposes. This is a single jacketed cotton rubber lined mild hose, tested to 250 pounds and furnished complete with automatic brass couplings which require no clamps. Every length fully guaranteed. In ordering be sure and state whether the couplings are to fit standard iron pipe or hose thread.

Inside Diameter Inches	Price Per Length 25 Ft.	Price Per Length 50 Ft.
1 1/4	\$7.65
1 1/2	\$8.50
2	10.95
2 1/2	13.65

Solid Brass Hose Nozzles

When ordering advise whether for hose pipe or iron pipe thread.



Size Inches	Length Inches	Price Each	Size Inches	Length Inches	Price Each
1	8	2	.....	12
1 1/4	12	2 1/4	.....	15
1 1/2	12	2 1/2	.....	20

Water Hose Couplings



3-Z-56. Order couplings same size as inside diameter of hose. Price without clamps.

Size hose, in.	1/2	3/4	1	1 1/4	1 1/2	2
Price per set	\$0.30	.35	.50	1.10	1.50	2.55

Hard Rubber Suction Hose



3-Z-43. Hard Rubber Suction Hose, smooth bore, extra heavy walls which will prevent collapsing when in use. Sold in lengths in multiples of 5 feet to fifty feet inclusive. Prices do not include couplings or clamps.

Size, Inches	1	1 1/2	1 3/4	2
Price per ft.	22c	26c	30c	40c

Hose Nozzle

3-Z-55. "Gem" pattern will throw a solid stream or spray. Size for 3/4" hose coupling. Price, each



Whirlwind Revolving Lawn Sprinkler

3-Z-49. The most popular Sprinkler offered. Brass head and arms. Sprinkler's height is 8 inches, with three 6-inch brass arms. Has loose swivel in sled. Covers a large area. The head is easy running and will operate equally as well under a low as a high pressure. This is a very handsome lawn fixture and can be placed anywhere without shutting off the water. Will fit 3/4" hose coupling.



Price each	\$1.90
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"Modern" Centrifugal Pump Sale



\$39⁵⁰
AND UP

Style No. 8-Z-85. New "Modern" Horizontal Side Suction Centrifugal Pump.

Our "Modern" Side Suction Centrifugal Pump

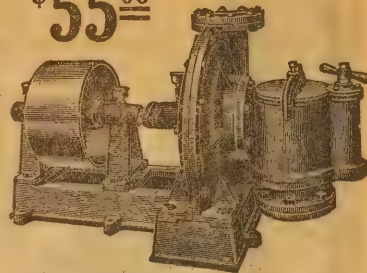
The pumps shown are the types used most extensively for general purposes and all irrigating and drainage service not exceeding 50 feet total pumping head. Large pulley is supported on either side by long bearings, furnished with brass compression grease caps. Only genuine babbitt metal is used in our bearings. Extra long stuffing box with packing gland is provided on shaft to insure operation without attention. We supply free the companion flanges for both suction and discharge openings. All parts of these pumps are accurately made and are interchangeable and can be promptly duplicated at any time.

Accessories, such as foot valves, flap valves, steam primers, etc., can be supplied at extra charge.

Our style No. 8-Z-86 is the modern Side Suction Centrifugal Pump, equipped with a hand suction primer. This does not require the use of a foot valve to retain water in suction pipe while priming, and while the cost is a little more it is a great convenience. Prices for pumps equipped with hand suction primer are given in table below.

IRRIGATING PLANTS FURNISHED COMPLETE

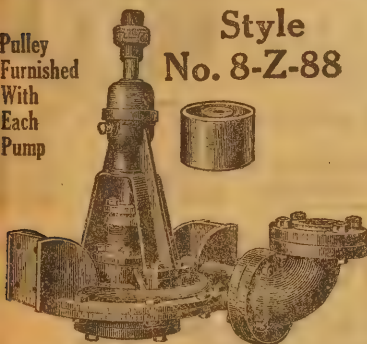
\$55⁰⁰



Style No. 8-Z-86. Above is illustration of our New "Modern" Style No. 8-Z-86. Horizontal Side Suction, Centrifugal Pump, equipped with primer.

Sizes, capacity and prices of "Modern" Side Suction, Brand New Centrifugal Pumps, F. O. B. Factory. Style 8-Z-86, without Primer. Style 8-Z-85 with hand suction primer.

No. Pump	Capacity, Gallons, Minute.	Size. Pipe.		Diam. x Face, Pulley, Inches.	STYLE 8-Z-85, WITHOUT PRIMER.	STYLE 8-Z-86, WITH PRIMER.
		Discharge.	Suction.		Iron.	Iron.
1 1/2	70	1 1/2 in.	2 in.	5 x 5	\$ 39.50	\$ 55.00
2	120	2 "	3 "	6 x 6	62.50	85.00
2 1/2	185	2 1/2 "	3 1/2 "	6 x 7	75.00	95.00
3	270	3 "	4 "	7 x 7	100.00	120.00
4	470	4 "	5 "	10x10	135.00	165.00
5	750	5 "	6 "	12x12	185.00	225.00
6	1100	6 "	8 "	14x14	260.00	300.00
8	2000	8 "	10 "	16x14	355.00	.....
10	3000	10 "	12 "	18x16	465.00	.....

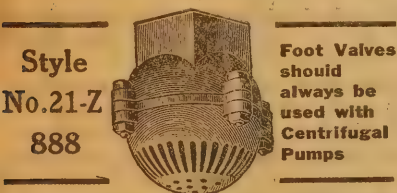


Style No. 8-Z-88

MODERN VERTICAL SUCTION CENTRIFUGAL PUMP

This pump, Style 8-Z-88, is intended principally for irrigating service, and is used by attaching the Suction Flange direct to well casing, the pump being mounted in a wooden frame work, carrying not only the pump, but the shafting, bearings, etc., to drive the pump from the pulley located just above ground surface at top of well. Pumps are furnished with pulley. Bearings, shaft collars and steel shafting can be supplied at extra cost if desired. The table below gives prices on Style 8-Z-88, and also Style 8-Z-87, illustrated at bottom of page. Couplings are bored same size as shaft and bearings.

Modern Foot Valves With Strainers



Style No. 21-Z-888

Foot Valves should always be used with Centrifugal Pumps

Six inch and smaller screw end, larger sizes have flanged ends.

Size.	Net Price.
2 inch	\$ 4.75
3 inch	7.75
4 inch	9.50
5 inch	11.50
6 inch	18.75
8 inch	30.00
10 inch	45.00

MODERN SUBMERGED CENTRIFUGAL PUMP

Pump shown as Style 8-Z-87 herewith, the prices being given in the table below, is intended to be entirely submerged in the liquid to be pumped, and is therefore used without a suction pipe. The submerged style of pump needs no priming. Price includes up-turn elbow, with companion flange, jaw coupling, one bearing with set collar for shaft and pulley, exactly as shown in the illustration. It will be noted that coupling is bored same size as shaft and bearing, which obviates necessity for turning down end of shaft to fit coupling. Set screws are furnished with all couplings. Extra bearings, set collars for shaft couplings, steel shafting, etc., can, of course, be supplied at extra cost. Write for prices, stating what you require.



Style No. 8-Z-87

No. Pump	Economical Capacity Minute	Size of Pipe		Pulley		Coupling Bored for	Style 8-Z-88 Suction Pump, Iron.	Style 8-Z-87 Submerged Pump, Iron.
		Disch.	Suct.	Diam.	Face			
1 1/2	70 Gals.	1 1/2 in.	2 in.	5 in.	5 in.	1 in. shaft	\$ 52.50	\$ 50.00
2	120 Gals.	2 in.	3 in.	6 in.	6 in.	1 1/2 in. shaft	85.00	95.00
2 1/2	185 Gals.	2 1/2 in.	3 1/2 in.	7 in.	6 in.	1 1/2 in. shaft	105.00	105.00
3	265 Gals.	3 in.	4 in.	7 in.	8 in.	1 1/2 in. shaft	125.00	120.00
4	470 Gals.	4 in.	5 in.	10 in.	8 in.	1 1/2 in. shaft	140.00	130.00
5	750 Gals.	5 in.	6 in.	10 in.	10 in.	1 1/2 in. shaft	180.00	175.00
6	1060 Gals.	6 in.	8 in.	14 in.	12 in.	1 1/2 in. shaft	220.00	235.00
8	2000 Gals.	8 in.	10 in.	20 in.	12 in.	2 in. shaft	335.00	325.00
10	3000 Gals.	10 in.	12 in.	24 in.	12 in.	2 1/2 in. shaft	425.00	415.00

HARRIS AIR COOLED AIR COMPRESSORS

These compressors are adapted for garages, machine shops, foundries, boiler shops and for all purposes where air at high pressure is required. These machines are very substantially built for continuous service. The air cooling feature has proved absolutely satisfactory and the regulation to given every compressor is to run ten hours against rated pressure.

The cooling principle is exactly the same as employed by the air cooled automobile manufacturers and the cost of installation is greatly reduced, as no tank or water pipe connections are required and there is no danger of freezing in winter.

Maximum Working Pressure 150 to 200 Pounds

Order No.	Style	Cu. ft. Free Air per Min.	Diam. of Cylinder	Length of Stroke	Rev. per Minute	Discharge Pipe	Diameter Pulley	Weight Lbs.	Horse Power Required	Prices Compressor Only
8-Z-1007	Sgl. Cyl.	4	3 1/4 in.	4 in.	200	1/2 inch	24x3 in.	240	2 H. P.	\$ 46.30
8-Z-2007	Sgl. Cyl.	6	4 in.	5 in.	200	3/4 inch	24x3 in.	300	3 H. P.	62.50
8-Z-3007	Sgl. Cyl.	12 1/2	5 in.	6 in.	200	1 inch	30x4 in.	600	6 H. P.	93.50
8-Z-1007	Dbl. Cyl.	8	3 1/2 in.	4 in.	200	1/2 inch	24x3 in.	300	2 H. P.	53.20
8-Z-2007	Dbl. Cyl.	12	4 in.	5 in.	200	3/4 inch	24x3 in.	350	3 H. P.	74.40
8-Z-2307	Dbl. Cyl.	25	5 in.	6 in.	200	1 inch	30x4 in.	750	5 H. P.	145.60

EXTRA SNAPS IN AIR TANKS

100 Air Pressure Tanks, made of 1/4-inch steel; good for 200 pounds pressure tapped to lay horizontally or vertically. When ordering state which type you prefer.

Order No. 8-Z-3802. 20 in. by 8 1/2 ft. Air Pressure Tanks.....\$50.0

Order No. 8-Z-3803. 20 in. by 9 1/2 ft. Air Pressure Tanks.....60.0

We will equip tank with 3 1/2-inch air gauge, extra.....3.7

Pop Safety Valve, 3/4-inch connection, extra.....4.5

50 Vertical High Pressure Tanks, good for 200 pounds pressure, 22" diameter, 48 high.

Order No. 8-Z-3804. Each.....\$25.0

SHIPPED FROM FACTORY
CENTRAL PENNSYLVANIA

FAULTLESS AIR COMPRESSOR

THE FAULTLESS AIR COMPRESSOR is a single-cylinder, single-acting, air-cooled machine.

POWER REQUIRED from one to two Horse Power, depending on speed and air pressure.

PRESSURE as high as 300 pounds per square inch can be developed with safety and a constant pressure of 200 pounds can be maintained without overheating.

SPEED should be about 300 revolutions per minute for constant running, although a speed of 400 for short intervals will be safe.

CAPACITY at 300 revolutions per minute is about five cubic feet of free air, at 400 revolutions over six and one-half cubic feet.

INTAKE is at top, a much better practice than at the bottom near the floor.

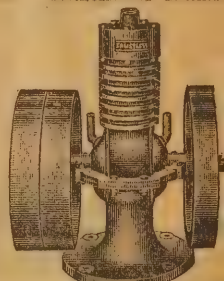
MATERIAL is of the very best for the purpose throughout. Base, cylinder, piston, fly wheels and pulley are close grained iron; connecting rod, all bearings and bushings are of bronze.

CRANK CASE enclosed and dust-proof. Lubrication by splash from oil in base, eliminating all grease and oil cups.

PULLEYS tight and loose, 13-inch diameter, 2 1/4-inch crowned face, weighing about the same as fly wheel, insures a steady running, perfectly balanced machine.

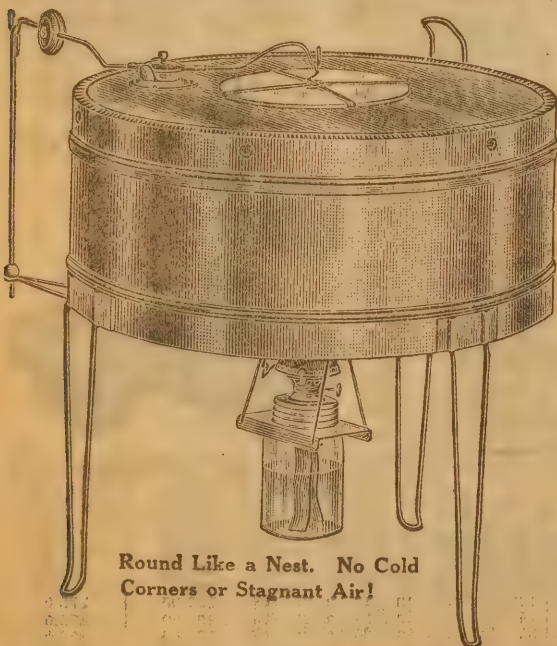
FINISH in Engine Green Enamel, with aluminum trimming.

VALVES are of special design poppet type in the head easily removed by taking out five bolts.



SPECIFICATIONS

Bore, 3". Stroke, 4". Fly wheel, 13" diameter, 2" face. Pulleys, 13" diameter, 2" face. Height, 23". Floor space, 15x11 in. Capacity, 4 to 7' free air per minute. Weight 130 pounds. 8-Z-9020. Price.....\$39.50



Round Like a Nest. No Cold Corners or Stagnant Air!

70 EGG INCUBATOR

PRACTICALLY ALL METAL CONSTRUCTION \$5⁴⁵

Practically all metal construction, that compares in every detail with machines selling at one-third more.

Nothing to cause trouble or get out of order; care in the selection of fertile eggs gives all users of this machine big hatches every time. Thousands now in use and all giving best satisfaction.

Practically all metal construction; rust proof finish; detachable legs. Perfect working lamp, simply and easily regulated. Glass damper—egg chamber and thermometer visible at all times. Uniform heat distributed; no handling of lamp; automatic ventilation. No stagnant air; everything easily understood.

We Guarantee this hatcher to be perfect in construction and workmanship, and to hatch as large a percentage of fine, healthy chicks from fertile eggs, as any incubator made.

16-Z-1604. 70-egg incubator complete, ready for use, with all instructions in simple language easily understood by anyone; shipping weight 21 lbs. When ordered by Parcel Post, include enough for postage.....\$5.45

HARRIS BROTHERS CO.
375 and Iron Streets, Chicago.

218 Send Us Your Inquiries. Get Familiar With Our Bargain Stocks.

HAND POWER ELEVATORS

Our brand new Hand Power Elevators are being installed throughout the country in stores, warehouses, factories, garages and many other places where hand power elevators can be used. They are so simple and so perfect that it is almost impossible for them to get out of order. They are strictly up-to-date in every respect, equipped with all the latest improvements and are built for heavy work and hard usage.

BARGAIN PRICE ELEVATORS.
HAND POWER—DRUM WIND
—EASY RUNNING

Complete with 4 Ft. x 4 Ft. Platform
Other Sizes up to 6 Ft. x 8 Ft.
Capacity 1,000 Pounds

Construction

FRAME—Made rigid, and is strongly ironed and braced.
CABLES—Three cables, two hoisting and one counter-weight cable, are used. These cables have an ultimate strength ten times greater than the rated capacity of the elevator. The Center Lift construction is undoubtedly the best, as the platform always hangs straight and can not bind. There is consequently no unequal strain on the cables, as may be the case with the side lift elevators.

ROPE WHEEL—Both iron and wood rope wheels are furnished, depending on the size platform used. The brake arrangement on the wood rope wheel is much more secure and on platforms larger than 6x7 feet, this type of wheel is used.

OPERATING ROPE—Strong manila rope made endless. The elevator can be built to have the hand rope wheel on either side, as desired.

SHOE BRAKE—Of convenient diameter and proper length and strength.

SPUR GEAR WHEELS—Extra heavy and cast from cut patterns—the very truest and best that can be made.

COUNTER-BALANCE WEIGHTS—Made in sections so that the desired adjustment may be secured. We furnish enough of these weights to lift the car with a light load.

SAFETY BRAKE—A self-holding shoe brake, and will not drag and make a noise. The platform, with a full load, can be firmly locked at any point. The operator has full control of the car at all times.

DRUMS—Made of wood, and are turned in a lathe, and perfectly smooth.

TOP FRAME—We have done away with the old fashioned, clumsy frame work found on elevators of the old type. See how simple is our frame work. We make this part of the elevator unusually strong and heavy, and as a result we receive no complaints as to the operation of our machines.

The car can be operated or controlled from the platform or any floor. For simplicity, safety, quickness and easy running this is undoubtedly the best cable lift elevator on the market. Our complete outfit consists of the elevator complete with all wood work and iron work—complete elevator ready to set into place.

How to Order

When ordering or asking for estimate of cost it would be well to give the following information: Give the height of each story of building from top-of-floor to top-of-floor, with the height of the top story in the clear.

Give total number of feet travel. The clear height of the top floor should not be less than 10 feet. (A greater space than this in many cases would be better to prevent crowding.)

State on which side you would prefer to have the hand rope wheel, whether left hand or right hand side when standing in facing the front.

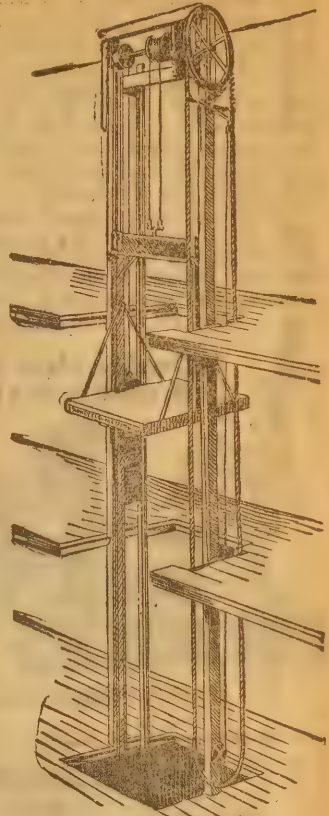
Give the size of platform wanted and the maximum lifting capacity; or state size of the existing hatchway, if we are to make an elevator to fit a certain size of opening.

Drawings and Instructions for Installing

Are sent with each elevator, so that any carpenter can install without difficulty. All our machines are made with a view to simplicity throughout, and are therefore easier to erect and at less expense for labor than others.

8-Z-550.	4x4 Platform complete with 10 foot lift.....	\$175.00
8-Z-552.	4x5 Platform complete with 10 foot lift.....	\$185.00
8-Z-554.	4x6 Platform complete with 10 foot lift.....	200.00
8-Z-556.	5x6 Platform complete with 10 foot lift.....	210.00
8-Z-560.	5x7 Platform complete with 10 foot lift.....	220.00
8-Z-562.	6x7 Platform complete with 10 foot lift.....	230.00
8-Z-564.	6x8 Platform complete with 10 foot lift.....	240.00
We can furnish above elevators at 2,000 lb. capacity at, extra.....		30.00
For each additional foot of lift over ten feet add.....		2.35
Safety Clutches or Locks. Set of four. Extra.....		28.00

We can furnish above elevators at 2,000 lb. capacity at, extra..... 30.00
For each additional foot of lift over ten feet add..... 2.35
Safety Clutches or Locks. Set of four. Extra..... 28.00



Build for Any Travel STRONG, DURABLE AND EASY RUNNING CARRIAGE ELEVATORS Cares of Any Desired Size

These Elevators are made strong and durable, and are very easy running, all of which features are most important. The necessary journals are fitted with Roller Bearings which run with inappreciable friction. These Bearings require no attention, and only occasional oiling. All Ropes are placed inside the Hatchway, making it convenient for the operator when he is running the elevator, standing on the platform. This arrangement also does away with the unnecessary friction between the floor and the ropes.

The Breaking Strain of the Lifting Cables is many times that of the rated capacity of the elevator—therefore providing a Large Factor of Safety.

The carriage elevator can be used without posts on rope side on floors, except the top, but guide posts are preferable—just sufficient to keep the platform from swinging. Both styles designed especially for carriage factories, livery stables, agricultural warehouses, etc., and are more suitable for such than a center lift. This elevator has our improved brake and Safety Stop at top floor to keep platform from running too high. The Counterweight may be run down any convenient wall at a distance, if necessary.

Construction

PLATFORMS—Made rigid and are strongly ironed and braced.

CABLES—Five cables—four hoisting and one counter weight cable are used. These cables have an ultimate strength ten times greater than the rated capacity of the elevator.

LARGE ROPE WHEEL—Made of cast iron and has its face turned true for the brake.

OPERATING ROPE—Strong Manila Rope made endless.

SHOE BRAKE—Of convenient diameter and proper length and strength.

SPUR GEAR WHEELS—Extra heavy and are cast from cut patterns—the very truest and best that can be made.

COUNTER-BALANCE WEIGHTS—Made in sections so that the desired adjustment may be secured. We furnish enough of these weights to lift the car with a light load.

SAFETY BRAKE—A self-holding shoe brake, and will not drag and make a noise. The platform with a full load can be firmly locked at any point. The operator has full control of the car at all times.

DRUMS—Made of wood, and are turned in a lathe, and perfectly smooth.

TOP FRAME—Which supports the machinery is built of well seasoned lumber, properly braced so to be rigid. We make this part of the elevator unusually strong and heavy, and as a result, we receive no complaints as to the operation of our machines. For Simplicity, Quickness and Easy Running this carriage elevator excels, and is undoubtedly the best machine on the market.

8-Z-566.	6x12 Platform complete with 10 foot lift.....	\$220.00	8-Z-571.	7x18 Platform complete with 10 foot lift.....	\$263.95
8-Z-567.	6x14 Platform complete with 10 foot lift.....	230.00	We can furnish above elevators at 2,000 lb. cap. at, extra..		30.00
8-Z-568.	7x12 Platform complete with 10 foot lift.....	240.00	We can furnish above elevators at 3,000 lb. cap. at, extra..		61.50
8-Z-569.	7x14 Platform complete with 10 foot lift.....	246.25	We can furnish above elevators at 4,000 lb. cap. at, extra..		90.00
8-Z-570.	7x16 Platform complete with 10 foot lift.....	257.50	For each additional foot of lift over ten feet add.....		2.35

F. O. B. Factory

HARRIS BROTHERS CO.
25th and Iron Streets, Chicago.

Get Our Prices on Circular Saws. We Can Save You Money

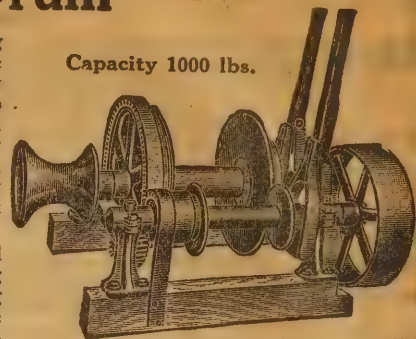
Belt Driven Power Hoists

Single and Double Drum

This powerful machine designed especially to save time and labor in unloading hay with regular harpoon fork or sling in connection with track and carrier. The machine will save one man and team, the man on the load operating the machine by simply pulling a line attached to a lever whenever he has the fork or sling ready to hoist. The machine stops pulling instantly when the lever line is released, the load may be dropped at any point and the fork or sling returned to the starting point, by hand, power or by means of a weight, as desired. If the fork fails to operate properly, the operator may allow the load to return gently to the starting point, or by allowing friction to slip, may hold load at fixed point. The machine is safe to operate, as it pulls strong and steady, and is under instant control.

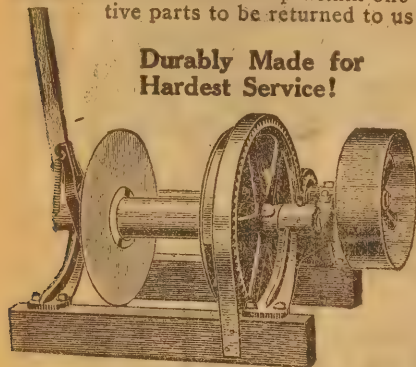
The machine, equipped in the various types described below, is adaptable for all kinds of pulling within its capacity, such as operating a hay fork, hoisting ice, loading boats, hoisting contractor's material, operating fence post or pile driver, scraping dirt, etc. Finish—Made of good material, well painted and all parts found defective in material or workmanship within one year will be replaced without charge. Defective parts to be returned to us prepaid.

Capacity 1000 lbs.



Type "B" Double Drum

Durably Made for Hardest Service!



Type "A" Single Drum

Specifications and Prices:

Large Drum—Diameter of center, 4 inches; diameter of flange, 18 inches; length inside flanges, 12 inches. Capacity of drum, 240 feet 1-inch rope.

Small Drum—Diameter of center, 2½ inches; diameter of flanges, 7 inches; length inside flanges, 10 inches. Capacity, 160 feet ¾-inch rope.

Size of Large Gear—Diameter, 19 inches, 76 teeth. **Size of Pinion**—Diameter, 5 inches; 20 teeth; ratio, 3¾ to 1. **Pulley**—14 inches in diameter; 5½ inches face. In ordering state diameter, face of engine pulley, H. P. of engine and speed at which it runs. Hoist will be equipped with proper pulley to correspond. **Horse Power**—2 to 6. **Speed of Hoist Pulley**—200 to 300 revolutions per minute. **Capacity**—Main drum may be run in either direction, and will hoist direct pull 1,000 pounds, and will easily hoist 1,500 pounds of hay from load, or where double line of rope is used. **Size of Drum Shaft**—1½ inches. **Size of Pulley Shaft**—1½ inches. **Length of Skids**—2 feet 7 inches. **Weight**—275 lbs., Single Drum Hoist. 300 lbs., Double Drum Hoist. **Floor Space**—2 feet 7 inches by 2 feet 10 inches.

8-Z-4100. Price—Type "A" Single Drum Hoist.....\$45.00

8-Z-4102. Price—Type "B" Double Drum Hoist.....57.50

Price—Extra for Brake, single or double drum hoists.....6.75

Price—Extra for Winch Head.....6.75

10 Inch Sensitive Drill Press

Capacity
0 to 5/16 Inch

\$25.00

Specially Made for the Small Machine Shop

A high grade drill press constructed and designed to meet the requirements of the small machine shop. Just the thing for garage work. Accurately built and splendidly finished by one of America's foremost machine tool makers. The best low priced sensitive drill press ever produced at such a low price.

8-Z-6042. Price of 10" Sensitive Drill Press, \$25.00 only

8-Z-6043. Price of 10" Sensitive Drill Press, \$29.00 with ½" Drill Chuck

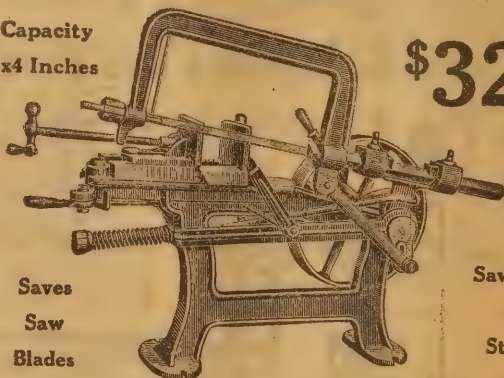
SPECIFICATION

Greatest distance from spindle to table.....	7½ inches
Vertical movement of spindle.....	2½ inches
Vertical movement of table.....	17 inches
Diameter of table.....	8 inches
Distance from center of spindle to frame.....	5½ inches
Drilling capacity.....	0 to 5/16 inch
Size of tight and loose pulley.....	12x4 inches
Speed of driving pulley.....	550 revolutions
Weight.....	50 pounds

Rapid Power Hack Saw

Capacity
4x4 Inches

\$32.50



Saves
Saw
Blades

Saws Fast
and
Straight

This fast straight cutting Hack Saw is exceptionally well made to do the work and do it well; saves your saw blades. Built with all the newest and best improvements—eccentric on inner portion of crank fitted to an arm that presses against a coiled steel spring through which extends a steel rod hooked firmly to rear portion of saw frame bearing the tension, pressing the saw down on material on the draw out. On return or push motion the tension releases. The tension on spring is regulated by a nut at the end of the spring, fitted with a quick action vice that saves time. Built to saw close to the vice.

A lever conveniently placed that raises or lowers the saw, holding it in the desired position allows free use of both hands in measuring and adjusting the material. An extension to table so material rests on both sides of saw is an important feature. The saw frames slide is made of square steel set on the quarter; the bearings of which have receptacle for oiled waste. By this construction, wear may be taken up indefinitely. Saw blade and frame will always be held rigidly in line. The drive shaft has a bronze bearing. Starter and automatic stop are conveniently placed at the front of the machine. Capacity 4x4", length of blade, 12"; size of pulley 12x2½". Revolutions 60 to 90 per minute takes 2½" belt. Shipping weight crated 125 lbs.

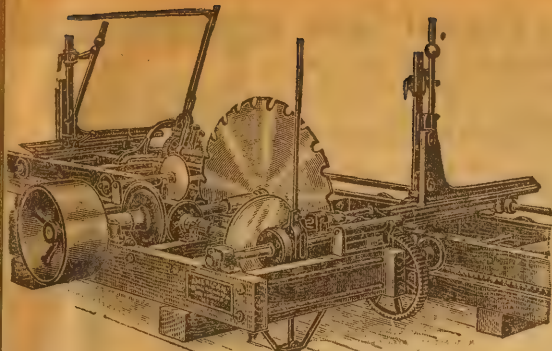
8-Z-7063. Price of Rapid Power Hack Saw, complete as described.....\$32.50

220 If the Machine You Want Is Not Shown---Remember We Have It

HARRIS BROTHERS CO.
35th and Iron Streets, Chicago.

SAW MILL MACHINERY

HIGH GRADE SAW MILLS



The Husk Frame and Carriage are made of the best selected Southern Yellow Pine.

The Mandrel is made of the best grade of steel, turned and ground perfectly true, with well proportioned collars. The lug pins are fitted in an improved manner so that they can easily be removed right at the mill if they should become sheared off.

The Nut is so made that the threads cannot be stripped or bruised and the saw can easily be removed without moving the guide.

The Saw Guide is of improved design, with large throat, can be used either right or left hand, is adjustable while saw is in motion, and can be easily thrown out of the way for removing or changing saws.

Our Variable Friction Feeds are the simplest, yet most durable, perfect and effective ever devised. It is positive and responds instantly to the slightest movement or pressure of the feed lever. It is this feature which distinguishes our mills from all others, makes them so very light running and adapted to use with small power of all kinds. The sawyer with one hand has absolute control of the mill at all times, can vary the feed to correspond with the power or size and quality of timber to be cut, sliding down for a hard place and instantly increasing the feed again as soon as it is past.

Lead Blocks and Knees. Our head block bases are cast in one piece and of such form as to insure the greatest strength. They are accurately planed to gauges and the knee carefully fitted so that it will slide freely, yet without lost motion. They open for actual use full width as per specifications. They are heavy and strong. **Have Graduations Full Length** and provided with convenient pointer and self aligning, adjustable set shaft bearings.

The Set Works. Our "Ideal" set works with Quick Receder are now used on our Standard Mills Nos. 1 to 4 inclusive. The set works are guaranteed accurate and positive, and the receder, operated by the same lever, is of immense value as a time saver. Only straight pull is required for either setting or receding. All Prices F. O. B. Factory in New Jersey Without Saws.

SPECIFICATIONS AND PRICES

Specifications of No. 1 Standard Saw Mill With Rack and Pinion Carriage Drive

Husk frame, 7' long, 3' wide; timbers, $3\frac{1}{2} \times 7\frac{1}{2}$.
Mandrel, $2\frac{1}{2}$ " diameter, 4' 4" long with pulley 20"x10".
Length of carriage, 16', width, 26".
Length of rack beam, 22'.
Size of carriage timbers, $3\frac{1}{2} \times 5\frac{1}{2}$.
Number of trucks, 4, with 6" wheels and $\frac{1}{4}$ " axles.
Length of steel track, 40'.
Number of head blocks, 2, with dogs.
Head blocks, open, 34".
Length of set shaft, 14".
Weight of mill, 2,800 lbs.
Capacity 7,000 to 8,000 feet per day.

No. 8-Z-2921. **\$386.75**

Price

Specifications of No. 2 Standard Saw Mill With Wire Cable Carriage Drive

Husk frame, 7' 6" long, 3' 6" wide, timbers, $3\frac{1}{2} \times 9\frac{1}{4}$.
Mandrel, $2\frac{1}{2}$ " diameter, 5' long, with pulley 20"x10".
Length of carriage, 20'; width, 30".
Length of rack beam, 26'.
Size of carriage timbers, $3\frac{1}{2} \times 5\frac{1}{2}$.
Number of trucks, 6, with 7" wheels and $\frac{1}{4}$ " axles.
Length of steel track, 48'.
Number of head blocks, 2, with dogs.
Head blocks, open, 38".
Length of set shaft, 16".
Weight of mill, 3,600 lbs.
Capacity, 10,000 feet per day.

No. 8-Z-2920. **\$510.00**

Price

Specifications of No. 3 Standard Saw Mill With Wire Cable Carriage Drive

Husk frame, 8' long, 4' wide; timbers, $4\frac{1}{2} \times 11\frac{1}{2}$.
Mandrel, $2\frac{1}{2}$ " diameter, 5' 6" long with pulley 20"x12".
Length of carriage, 24', width 36".
Length of rack beam, 32".
Size of carriage timbers, $4\frac{1}{2} \times 6\frac{1}{2}$.
Number of trucks, 6, with 8" wheels and $1\frac{1}{8}$ " axles.
Length of steel track, 56'.
Number of head blocks, 2, with dogs.
Head blocks, open, 44".
Weight of mill, 4,700 lbs.
Capacity, 12,000 feet per day.

No. 8-Z-2922. **\$625.00**

Price

Friction Feed Drag Saw

The Main Frame is 26 inches wide, $8\frac{1}{2}$ feet long and is made of $3\frac{1}{2} \times 5\frac{1}{2}$ inches seasoned, hard wood strongly framed together, securely bolted and braced.

The Track is 27 inches wide, 6 feet long, made of $2\frac{1}{4} \times 4$ inch timbers, well framed together.

The Friction Feed is very simple, yet positive and effective. It will start, stop or reverse, instantly by very slight motion of the feed lever. Without any effort on the part of the operator, it will last for years. This enables the operator to feed the logs ahead or back at will as much or little as desired, and stops at any point without running back or losing time.

The Balance Wheel is large and heavy and counter-balanced, imparting a strong, steady motion, and is arranged for changing the stroke from 16 inches to 20 inches or 42 inches.

Price, complete with 24x6 pulley.....**\$165.75**
Price, complete with T. & L. pulleys.....**179.50**
Price, complete without power feed but with hand ratchet feed **151.25**

The Log Truck is very substantial, having steel axles and two dogs for securely holding the logs.

The Saw is raised with one hand and the friction feed operated with the other, thus changing and setting for a new cut without slowing down or stopping. A strong, reliable saw guide is also provided.

Unless otherwise ordered, each machine is furnished complete with 24x6-inch driving pulley, long truck, power rolls, tumbling roll with two Universal Couplings, 16 feet of track and one 5 ft. 6 in. saw.

We can supply this Drag Saw without power feed and with a Ratchet Lever to operate the feed rolls, thus making a most desirable hand feed machine at very low price.

Capacity: 30 to 40 cords of wood per day, depending on kind of wood, power and speed.

Power required. Two to four horse power will operate to good advantage; more power will give machine greater capacity.

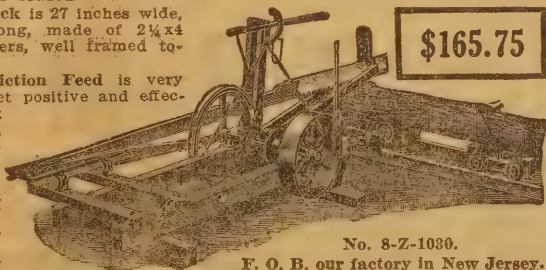
Speed recommended. 125 to 175 strokes per minute.

Length of stroke may be adjusted to 16 inches, 20 inches or 24 inches.

Weight complete, 1,150 pounds. **Weight, packed for shipment,** 1,300 pounds. **Weight packed for export,** 1,450 pounds, 51 cubic feet.

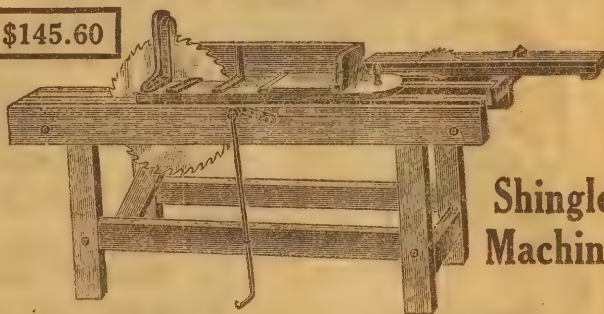
HARRIS BROTHERS CO.
15th and Iron Streets, Chicago.

No. 8-Z-1030.
F. O. B. our factory in New Jersey.



\$165.75

\$145.60



Shingle Machine

The Carriage is very substantial and provided with a strong iron yoke that will admit saws up to 36 inch diameter. The underside is fitted with gibs, planed to fit the iron track to which they hold the carriage securely. These gibs are slotted to provide adjustment and to take up lost motion.

The thickness of shingle is regulated by an adjustable tilting Device in the center board, which can be removed for cutting box boards, etc. The center board is adjustable to regulate the thickness of box boards and may be removed entirely for bolting or squaring shingle blocks. No separate shingle block boiler is required. Shingles drop out underneath as they are cut.

Power Feed is provided which is thrown into gear by pressure of the foot on the treadle, and the machine can be used either with hand or power feed.

The Mandrel is steel, with 6 inch collars and runs in self-oiling boxes, connected by heavy yoke with adjusting screw for regulating the lead of the saw.

An edger and Knot saw is provided which has an 8-inch saw and a convenient gauge, insuring square, straight edge shingles.

Larger saw for bolting the stock can be furnished, when desired, at additional cost. 5,000 to 10,000 shingles per day can easily be cut. Experts have done more.

The machine will handle square, round, or split blocks up to 24 inches long.

Furnished complete, with 24-inch shingle saw, 8-inch edger saw and feed and edger belts.

Dimensions:

Frame, 7' long, 2' 5" wide.	Carriage, 3' 8" long, 13" wide.
Power feed, 24".	Main Mandrel, $1\frac{1}{2}$ "
Driving Pulley, 6"x6".	Weight, with edger, net, 625 lbs.; gross, 750 lbs.
Power required, 4 to 8 H. P.	Speed of 24" Saw, about 1,200 revolutions.

Shipped from factory in New Jersey.

No. 8-Z-2924. Price, with edger.....**\$145.60**

No. 8-Z-2925. Price, without edger.....**\$131.95**

For making machine to cut 36-inch long, extra.....**\$18.75**

Get Our Special Book on Machinery—Just Out

Rip and Cut-off Saw

Strong, substantial and durable machine fitted with an improved safety guard, designed for heavy shop and factory use, and for handling all ordinary work.

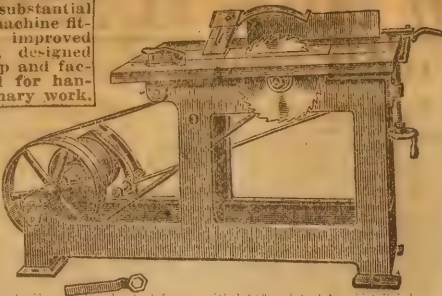


Table The table on this machine is hinged at back of frame on 1 in. steel shafting, and the steel and fall at the front is regulated by screw and a wheel. The table is made of iron in one piece, strongly built, planed perfectly smooth. The cut-off or mitre gauge slides in 2 grooves, extending the entire length of the table, one on each side of the saw line. It will mitre to 45 degrees either way.

Frame This is cast of one solid piece, very strongly built and well proportioned.

Saw Mandrel The mandrel has well habitted bearings set in top of the solid frame, so that vibration of saw is avoided. Journal caps adjustable for wear are held in place by four cap screws. Pulley on mandrel has 47-in. face, machined all over. Mandrel is steel 1 1/2 in. diameter by 24 in. long.

Saw Is 12 in. in diameter and projects 3 in. above table when level. It is easily removed by releasing table or removing throat piece clamp. Collar is 4 in. in diameter. Saws up to 14 in. diameter can be used.

Journal Bearings Are all fitted with oil pockets and dustproof self-closing oilers. They have generous wearing surface, are heavily backed and made with caps to take up wear.

Safety Guard Is a feature not found on any other machine, and a very desirable feature. It is attached to metal guard over saw, serving to protect the operator from injury.

Counter Shaft Is 30 in. long. It is supported in long bearings at end of solid frame. Tight and loose pulleys are 10 in. in diameter by 5 in. face and should be speeded 650 revolutions per minute to give same a speed of 3,000 revolutions.

Dimensions of Saw Table

Floor space, 41 in. x 66 in. Distance of saw to fence, 18 in. 3 in.
Height of table, 32 in. Vertical travel of saw above table, 3 1/2 in.
Size of table, 31 in. x 38 in. Journal bearings on saw mandrel, 3 1/2 in. long.
Size of mandrel, 1 1/2 in. x 24 in. Journal bearings on countershaft, 5 in. long.
Size of mandrel hole for saw, 1 in.
Diameter of saw, 12 in.

Regular equipment furnished: 1 12-in. saw, either cut-off or ripped, 1 cut-off fence, 1 ripping fence, 1 nut wrench for mandrel and one safety guard for saw.

8-Z-100. Price Saw Table Complete. **\$225.00**

8-Z-101. Boring attachment, for Saw Table. **\$52.50**

POWER BAND SAWS

Band saws are very much alike in the work they perform, but there is a vast difference in their durability and convenience of operation. Our band saws include the latest time and labor-saving attachments as follows:

New iron table, plain, perfectly smooth which cannot warp as do wooden tables. A belt shifter that can be used either above or below the pulleys. It is easily within reach of the operator's left hand instead of low-down under the table.

An upper wheel adjustment on same side of machine as the operator when at work.

The up and down adjustment of the upper wheel is below instead of above said wheel and made conveniently rigid by the operator without changing his position.

The wheels are turned true and perfectly balanced. Rubber bands are securely cemented to rims. Upper wheel has up and down adjustment of several inches.

The table on the 20-in. saw can be tilted for angle sawing up to 45 degrees by loosening a nut with an attached lever and can be firmly locked where desired.

Dimensions of 20-In. Saw

Wheels, 20 1/2 in. diam., 1 1/2 in. face.
Size of table, 18 in. x 22 in.
Size of base, 11 1/2 in. x 23 in.
Size of pulleys, 7 in. diam., 3 in. face.
Saw blades, 10 ft. 5 in. long, 3/4 in. wide.
Floor space, 24 in. x 30 in.
Distance between saw and frame, 20 1/2 in.
Height under saw guide when raised, 9 in.
Height over all, 67 in.
Speed to run, 300 to 400 revolutions.

Regular equipment furnished: Two plain guides, brazing clamp and tong, piece brazing material and one blade 3/4 in. wide, ready for use.

8-Z-14. Price 20-in. saw with tight and loose pulley. **\$100.00**

Weight, 890 pounds.

Extra saw blades, 10 ft. 5 in. by 3/4 in., each. **\$2.50**

Wright's patent non-friction table. Saw guide extra. **\$5.05**

Dimensions of 26-In. Saw

Wheels, 26 1/2 in. diam., 1 1/2 in. face.
Size of table, 22 in. x 26 in.
Size of base, 13 1/2 in. x 23 in.
Size of pulleys, 10 in. diam., 3 in. face.
Saw blades, 18 ft. 9 in., 3/4 in. wide.
Floor space, 30 in. x 40 in.

Regular equipment furnished: Wright's guide above table, plain guide below table, brazing clamp and tong, brazing material and one 3/4-in. blade ready for use. Choice of any width blade up to 1 in.

8-Z-15. Price 26-in. saw with tight and loose pulley. **\$175.00**

Weight, 700 pounds.

Extra saw blades, 13 ft. 9 in. by 3/4 in., each. **\$3.75**

Extra for ripping gauge. **\$19.25**

Write for Prices on Larger Sizes

Swing Cut-off Saws

This Machine can be used for a large variety of light work, and is especially useful in woodworking establishments where a large, heavy frame is unnecessary. The length of frame is such that it may be suspended over an ordinary work bench.

The Frame is of solid cast iron, strong and very rigid. None of the weight of the frame is borne by the shaft or bearings, as the frame swings on trunnions which are carried by the hangers. The mandrel and pulley are turned from solid steel.

The Guard for the saw is provided with a handle for operating the frame.

Dimensions:

Length from countershaft to mandrel, 3 ft. 3 in.

Drop of hangers, 8 in.

Diameter of countershaft, 1 7/8 in.

Tight and loose pulleys, 6x3 in. Speed, 450 r. p. m.

Drive pulley, 12x3 in.

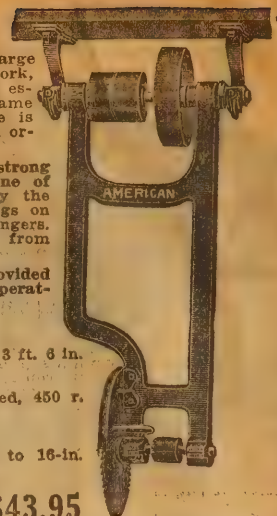
Mandrel pulley, 3x3 in.

Takes saws with 1-in. hole and up to 16-in. diameter.

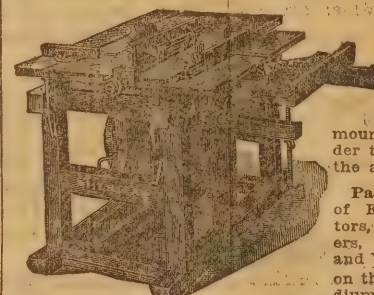
Shipping weight, 200 pounds.

8-Z-1000.

Price, complete, except saw. **\$43.95**



CONTRACTORS PORTABLE VARIETY WOODWORKER



A combined Rip and Cut-off Saw Bench with Boring Attachment, Hollow Chisel Mortiser and Jig Saw Attachment. A 6-inch Jointer and Dado Heads and with Gasoline Engine or Electric Motor of ample power, mounted in the frame, directly under the table, and belted direct to the arbor.

Particularly adapted to the use of Engineers, Builders, Contractors, Carpenters, Concrete Workers, Lumber Yards, Millwrights and Wheelwrights, to be used right on the job for doing light and medium mill work.

The Frame is made of seasoned hardwood, accurately framed and strongly bolted together, insuring strength, rigidity and durability.

The Top is iron, 54 in. x 30 in., accurately planed and strongly hinged in the rear of the frame.

Adjustable Ripping Gauge is furnished, which has a tilting fence for bevel sawing, and has rapid, fine adjustment and locking device for securing it at any point. It opens to 14 inches from the saw.

The Jointer or Planer is entirely separate from the top of the machine and always ready for use without making any changes. It has a steel cutter head fitted with two 6-in. knives and slotted on two sides to receive Matcher Bits or Moulding Cutters for working a large variety of shapes. Safety Head can be furnished instead, if preferred, without extra cost. The tables are 7 1/2 inches wide, 43 inches long, and are adjustable to any desired position. An adjustable fence is provided, which tilts to any desired level for chamfering, etc. The Jointed Head is removable, to permit the use of the Sander Drum. A Jointer Guard is furnished free.

The Hollow Chisel Mortiser is one of the most valuable features of this machine. It will work bits from 3/4 in. to 1 1/2 in. and cuts a clean, smooth mortise with square corners and accurate to size. The table has a vertical adjustment of 3 1/2 inches and a travel of 4 inches in line with the spindle, and is provided with a foot treadle for feeding the work to the bit and a coil spring for the return motion. (One 3/4-in. bit is furnished with the machine.)

The Boring Machine The Mortiser is also used as a Boring Machine by simply removing the mortising chisel and substituting a regular boring bit. When so used the table can have a movement of 6 inches in line with the spindle by changing the pin in the link under the table. When the Hollow Chisel Mortiser is not wanted the machine may be furnished with a plain Boring Table. This has a travel of 6 inches in line with the spindle and a vertical adjustment of 3 1/2 inches. The bits have 6-in. twist and 1/2-in. shank and are held in the arbor by a hollow safety set screw.

The Arbor is steel, 5/16-in. diameter, with self-oiling, habitted boxes strongly yoked together, thus insuring strength, permanent alignment and cool-running bearings. It is driven by a 3 1/2-in. endless belt direct from the engine or motor, and a BELT TIGHTENER is provided with ADJUSTABLE SPRING TAKE-UP to insure correct tension on the belt.

The Engine is of ample power, of the most approved design of the WATER-COOLED type, STRONG, DURABLE, SIMPLE and RELIABLE. It starts easily, runs smoothly and steadily.

Electric motor can be furnished in place of the engine if preferred. Price depends on make and type of motor wanted and will be quoted on application. In requesting price, please advise what make preferred, what horsepower, what voltage, whether direct or alternating current. If alternating current, let us know whether a single, two or three-phase machine, also cycle wanted.

The Regular Equipment Consists of the Engine, with batteries, spark coil and connections. Jig Saw Attachment with belt and four blades. Endless Driving Belt, Rip and Cut-off Gauges, one 14-in. Rip Saw, one 14-in. Cut-off Saw, one 1/2-in. and one 3/4-in. Dado Head; one Jointer Head with two 6-in. knives; one each 1/2-in. and 1-in. Auger Bits; one 3/4-in. Hollow Chisel and Bit; one Sander Drum and one Sander Disc; one Emery Wheel with Arbor; one throat piece for Dado Heads; one throat piece for saws, oil can and wrenches. The largest saw that can be used is 16-in.

Magneto is furnished regularly with the engine equipment unless otherwise ordered, but we can furnish batteries when desired at a lower price.

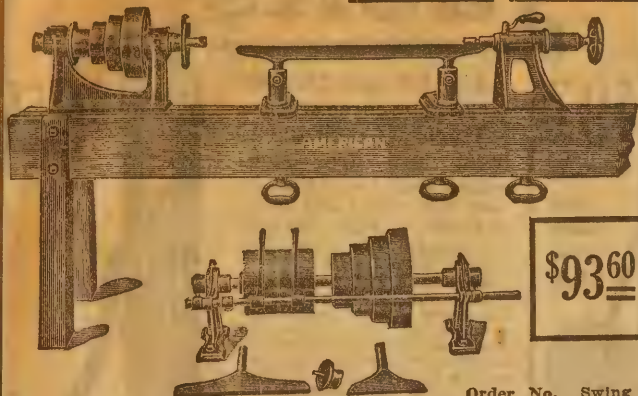
The Magneto, however, gives a stronger spark, makes the engine run better.

8-Z-4210. **\$310.00**

Price without power or inside belt. **\$336.75**

8-Z-4220. Price with countershaft and inside belt without power. **\$336.75**

WOOD TURNING LATHES



Our Wood Lathes possess every desirable improvement and convenience, they are well built, neatly finished, and will stand the hardest kind of turning.

The Head and Tail Stocks are made heavy and rigid, so as not to spring or chatter when running. The bottoms of the head and tail stocks are planed on a mandrel, so that the centers come exactly in line when fitted to the shears.

The Spindles and Centers are made of the best steel. The cone driving pulleys are made of iron. The bearings of the head stock spindle are lined with genuine babbit.

The Countershaft is complete, with shifter, and will be furnished with iron or wood cone pulleys.

The Parts Furnished with a single-end lathe, are the head and tail stocks, one each spur, and conical center, one face plate, one screw face plate, two rest stands and three tool rests of different lengths, three clamp bolts for the stands and tail stock, countershaft with shifter. The wood bench is not furnished unless specially ordered, at extra cost.

Dimensions.		Speed of		Weight Iron Parts only	
Face of Cones	Changes of Speed	T. & L. Pulleys	Countershaft		
2"	4	6"x3 1/4"	800	340	\$ 93.60
2"	4	8"x4 1/2"	700	430	102.50
2 1/2"	5	10"x4 1/2"	600	480	114.10

WILL NOT SPRING OR CHATTER WHEN RUNNING

GANG LATH MACHINE

The Mandrel

Is of the best grade steel, turned and babbitted boxes and may be fitted for any number of saws, from three to six, as may be ordered, but usually only three saws are furnished.

Springs are provided for regulating the pressure of the rolls on the stock, and the tension may be changed as desired.

Changing Saws

Is very easily and rapidly done by removing a section of the table.

Machine

Can be fitted to cut pickets, chair stock or any small squares from 1 1/4 x 1 1/2 in. up to 2 x 2 in., for which extra charge will be made.

Lot No. 8-Z-3500
Frame, 37 in. long, 37 in. wide, 27 in. high. Lath Saws, 10' in. Driving pulleys on mandrel, 8x8 in. Speed of lath saws, 2,700. Weight of Machine, net, 675 lbs. Weight packed for export, gross, 800 lbs. Cubic measurement, about 26 cubic feet. Capacity, 30,000 to 40,000 laths per day.
Price (with 3 saws).....\$209.30 Price (with 5 saws).....\$222.10
Price (with 4 saws).....\$215.65 Price (with 6 saws).....\$235.50
Bolting attachments \$90 extra. F. O. B. our factory in New Jersey.

WOOD SPLITTER OR POWER AXE

It Is Designed to withstand the strains to which such a machine is necessarily subjected, and will soon pay for itself in any wood yard or kindling wood factory where much splitting is to be done. Hard, knotty maple, oak, pine or other kinds of wood can be easily split. A single machine will split 4 or 5 cords per day. Double machine 10 to 20 cords per day.

The Wood is held in an upright position by the hands of the operator, the lower end resting on the bed plate and merely turned around as the splitting is done. It can be erected on any strong floor or timbers embedded in the ground.

Bed Plate has adjustment giving machine a range for splitting wood 8 to 18 in. long.

The Crank Shaft is made of steel and runs in babbitted self-oiling boxes. The driving pulley weighs about 250 pounds and has heavy rim so as to give plenty of momentum. It is 32x36 in. and should run 150 revolutions per minute. One to two horsepower required to operate.

Price, Single 18-in. machine...\$175.50
Price, Double 18-in. machine...\$286.75
Price, Single 24-in. machine...\$195.00
Price, Double 24-in. machine...\$302.50

8-Z-3034

F. O. B. our factory in New Jersey.

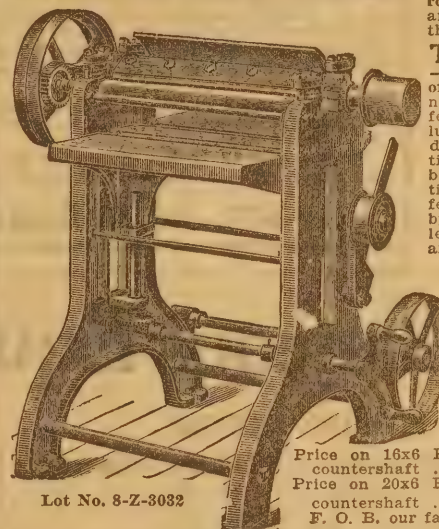
Weight, single machine, net 1,300 lbs. Gross, 1,500 lbs.
Weight, double machine, net 1,850 lbs. Gross, 2,100 lbs.

WOOD PLANER

Has two driven feed rolls, one in the front and one in the rear of the cutter head.

The Position

of the cutter head is not changed for different thicknesses of lumber so that the driving belt remains tight though it is belted from any direction. Two speeds of feed are provided for by means of cone pulleys. All adjustments are quickly and easily made and in changing for different thicknesses of planing, no bolts or screws have to be loosened or tightened. It works hard or soft wood equally well. Built in two sizes to plane 16 in. and 20 in. wide and 6 in. thick.

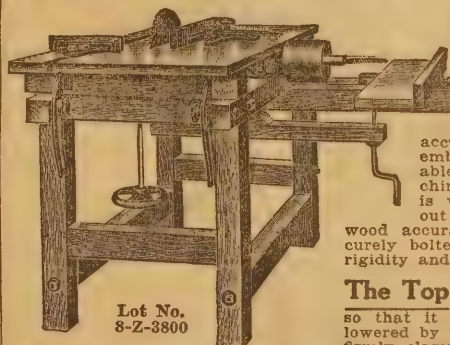


Lot No. 8-Z-3032

Price on 16x6 Planer, with countershaft\$225.25
Price on 20x6 Planer, with countershaft\$240.75
F. O. B. our factory in New Jersey.

Ship. wt. 16 in. machine, 720 lbs. Ship. wt. 20 in. machine, 745 lbs.

"COMBINATION" SAW BENCH



Lot No. 8-Z-3800

Our Combination Rip and Cut-off Saw is furnished either with or without the boring attachment as ordered. The machine is strong,

accurate and serviceable, embodying every desirable feature in a machine of this kind. It is well made throughout; of seasoned hardwood accurately fitted and securely bolted together, insuring rigidity and durability.

The Top is hinged to the rear of the frame so that it may be raised and lowered by the hand screw, and firmly clamped in any position.

The Mandrel is best cold rolled steel, and runs in self-oiling babbitted bearings which are securely yoked together, insuring perfect alignment. Saws up to 20 in. can be used.

Adjustable ripping and cut-off gauges are provided. The cut-off gauge works in an iron groove the entire length of the table, and may be set to cut Square or Any Angle to 45 Degrees. One 14 inch rip saw is furnished with the machine. Table is 54x30 in. Steel mandrel, 1 7/8 in., fitted for saws with 1 1/4 in. hole Mandrel Pulley, 6x6 in.

Price, without countershaft.....\$148.50
Price, with countershaft.....\$175.95

Pump

Jacks



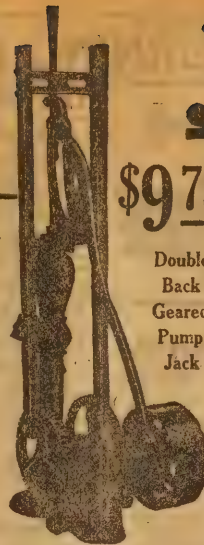
\$725

**Lot No. 8-Z-660
BASE JACK
Weight 80 lbs.**

No. 550 and No. 660 Jacks are used in connection with gasoline engines or any other belt power and can be attached to any ordinary pump stand.

The pitman rods are vertical on up stroke so there is no side wear on the piston bar of pump, and are adjustable for pump stands of different heights.

Furnished with tight and loose pulleys, 12 in. in diameter, for 2 inch belt, and should be driven from 150 to 200 revolutions per minute.



\$975

**Double
Back
Geared
Pump
Jack**

This type of jack is fitted with two sets of driving gears. You can readily see that it is double the strength of the single geared type, and we recommend its use on very deep wells, although it can be used on shallow wells.

It has three strokes, 4½, 7 and 10 inches, and is back geared 9¾ to 1, so that the driving pulley makes about 300 revolutions per minute while the pump is making 30 strokes per minute.

This is a most excellent jack to use with all sizes of gasoline engines; if you have a small engine you can belt direct without reducing its power or slowing the engine down.

Pulleys are 12 inches diameter for 2-inch belt, but if these sizes do not give you the required speed other diameter pulleys can be furnished at a nominal cost.

Lot No. 8-Z-770. Double Back Geared Pump Jack

No. 550 and No. 660 jacks have three strokes—5 inch, 7½ inch and 10 inch, and are back-gear 4¾ to 1 so the pitman rod makes one complete stroke while the pulley makes four and one-quarter revolutions.

Our No. 5 jack clamps direct to pump as shown in illustration. No. 6 jack is so constructed that it bolts to same platform that pump is attached to and can be used on the floor, wall or ceiling. This jack we recommend where it is not possible to clamp direct to pump.



\$650

**Lot No. 8-Z-550
CLAMP JACK
Weight, 70 lbs.**

\$975

Miscellaneous Equipment Bargains!

NEW ELECTRIC MOTORS

No. 8-Z-801—BRAND NEW ELECTRIC MOTORS suitable for washing machines, sewing machines, etc.

ALTERNATING CURRENT

- 7—1/8 H.P., 115 volt, 40 cycle.
- 3—1/8 H.P., 110 volt, 60 cycle.
- 2—1/8 H.P., 210 volt, 60 cycle.
- 23—1/8 H.P., 220 volt, 60 cycle.
- 1—1/8 H.P., 125 volt, 40 cycle.
- 5—1/8 H.P., 110 volt, 50 cycle.
- 1—1/8 H.P., 120 volt, 42 cycle.
- 1—1/8 H.P., 120 volt, 133 cycle.
- 1—1/8 H.P., 220 volt, 133 cycle.
- 1—1/8 H.P., 220 volt, 42 cycle.
- 1—1/8 H.P., 220 volt, 50 cycle.

EACH.....\$14.00

No. 8-Z-802—

DIRECT CURRENT

- 67—1/8 H.P., 110 volt.
- 47—1/8 H.P., 220 volt.
- 3—1/8 H.P., 125 volt.

EACH.....\$14.00

AIR COMPRESSORS

No. 8-Z-803—1 8"x8" Ingersoll Rand, Class E. R. 1 Belt Driven Air Compressor; arranged for individual motor drive thru short belt connection, fitted with idler pulley; capacity 113 cu. ft. of air. Air pressure up to 130 lbs. at 250 revolutions; first-class condition. Price.....\$350.00

1 6"x6" Curtis Belt Driven Air Compressor, double cylinder vertical, capacity 60-80 cu. ft. air pressure 100 lbs. Price.....\$275.00

1 6"x6" Gardner Rix Vertical Air Compressor, capacity 40 cu. ft., air pressure up to 200 lbs., complete. Price.....\$250.00

1 4½"x4½" Gardner Double Cylinder Vertical Air Compressor, capacity 45 cu. ft., air pressure 100 lbs., complete. Price.....\$250.00

12 New York Air Brake Co. double cylinder locomotive type steam driven air compressors. Diam. of steam cylinders 9½"; air cylinders 7"; stroke 8"; capa. 50 cu. ft.; speed 120 R. P. M.; air pressure up to 125 lbs. Price each.....\$175.00

MISCELLANEOUS

No. 8-Z-5900—25 Underground gasoline storage tanks, 64" dia., 6' long, 1000 gallon capa., ¼" material. Brand new. Location—warehouse in Ohio. Price each.....\$125.00

No. 8-Z-5982—15 Brand New Black Seamless Welded Open Top Storage Tanks, 43" wide, 8" deep, 8' to 9' long; 3/16" material. Price, each.....\$25.00

No. 8-Z-5975—4 Triumph Apple Parers. Price, each...\$35.00

No. 8-Z-5983—1 Copper Benzine Still, egg shape, approximately 75 gallons capacity. Price.....\$150.00

No. 8-Z-5980—1 Bauscher, all steel, lead melting pot, complete on stand steel grate enclosed in steel body, fitted with feed door and cover. Price.....\$95.00

No. 8-Z-865—1 All-Steel Power Baling Press; size, 23" x 36" x 54". Suitable for baling scrap tin plate, copper wire, paper, rags, shavings and all products requiring baling, arranged to be geared to motor or can be belt-driven. Manufactured by Minnich Machine Works. Price.....\$375.00

Thousands of Snaps Like These in Our Big Complete Stocks!

BELT DRIVEN POWER WATER PUMPS

- o. 8-Z-957—1 Kingsford Horizontal Side Suction Centrifugal Pump, 24" suction, 24" discharge. Capacity, 20,000 gallons per minute. Horsepower required for each foot of lift, 6.3. Belt pulley, 32" dia., 20" face. Price.....\$850.00
- o. 8-Z-990—1 Fairbanks-Morse Horizontal Side Suction Centrifugal Pump, 10" suction, 8" discharge. Capacity, 2,000 gallons per minute. Horsepower required for each foot of lift, 1. Belt pulley, 20" dia., 12" face. Price.....\$250.00
- o. 8-Z-439—1 American Horizontal Side Suction Centrifugal Pump, 8" suction, 8" discharge. Capacity, 2,000 gallons per minute. Direct connected on same base to 20 H.P. Westinghouse motor; 110 volt, direct current; speed, 1,050 revolutions. Complete with starting box. Price.....\$450.00
- o. 8-Z-2032—1 Platt Iron Works Horizontal Centrifugal Pump, 14" suction, 12" discharge. Capacity, 3,500 gallons per minute. Price.....\$375.00
- o. 8-Z-2007—1 Fulton No. 10 Horizontal Centrifugal Pump, 12" suction, 10" discharge. Capacity, 3,000 gallons per minute. Price.....\$250.00
- o. 8-Z-1069—1 Swaby Horizontal Side Suction Centrifugal Pump, 8" suction; 6" discharge. Capacity, 1,100 gallons per minute. Horsepower required for each 10' of lift and elevation, 1. Belt pulley, 14" dia., 12" face. Complete with hand primer. Price.....\$225.00
- o. 8-Z-1057—5 Horizontal Centrifugal Phosphate Mining Pumps, 8" suction, 3" discharge. Mounted on cast-iron sub-base, arranged for direct connection to engine or motor. Manufactured by Tampa Foundry & Machine Co. Price, each.....\$375.00
- o. 8-Z-1036—1 American Vertical Centrifugal Pump, 5" suction, 4" discharge. Capacity, 470 gallons per minute. Direct connected to 10 H.P. Lincoln vertical shaft motor, 110 volt, direct current; speed, 1,300 revolutions. Equipped with discharge pipe and shaft to set in 5' pit. Will send blue print on request. Price.....\$350.00

CRUSHERS

- o. 8-Z-200—1 Gardener No. 66 Crusher or Pulverizer (Hammer Type), capacity, 3 to 4 tons per hour, requires 10 H.P. opening, 10"x4". Price.....\$300.00
- o. 8-Z-202—1 Jeffrey, Type B, Crusher or Pulverizer (Hammer Type), mounted on cast-iron hollow base, practically square, capacity, 3 to 4 tons; opening, 10"x6". Price.....\$300.00
- o. 8-Z-203—1 8"x12" Allis-Chalmers Jaw Crusher, brand new, capacity, 3 to 6 tons per hour. Price.....\$525.00
- o. 8-Z-204—1 12"x24" Allis-Chalmers Reliance Jaw Crusher, capacity, 20 to 30 tons per hour; requires 25 H.P.; weight, 1,000 lbs. Price.....\$1,500.00
- o. 8-Z-205—1 Buchanan 24"x14", Type C, Roll Crusher, rolls 24" dia., 13½" base; balance wheel, 60" dia. x 11½" face. Price.....\$800.00
- o. 8-Z-206—1 Buchanan 10"x16" Rock and Ore Crusher (Jaw Type), capacity, 100 to 150 tons per day; weight, 10,000 lbs. Price.....\$1,000.00
- o. 8-Z-207—1 No. 3 Gates Gyratory Stone Crusher. Price.....\$2,200.00

CONCRETE MIXERS

- o. 8-Z-1952—1 No. 1 Chicago Concrete Batch Mixer. Portable, mounted on wheels; capacity, 10 cubic feet mixed material. Equipped with steam engine and boiler. Plain discharge spout. Swinging discharge spout. Price.....\$600.00
- o. 8-Z-1501—Smith Concrete Mixer Gasoline Engine driven, portable mounted on structural steel trucks, with feed chute, capacity about 4 cu. ft. unmixed material per batch. Engine rated 4-H. P. of the Fairbanks Morse make. Price.....\$225.00

HARRIS BROTHERS CO.
10th and Iron Streets, Chicago.

Send Us Your Inquiries!

LAUNDRY MACHINERY

- No. 8-Z-731—No. 3612 American Shirt Bosom Press; double board. Price.....\$250.00
- No. 8-Z-732—1 No. 362 American Cuff Press; steam heated. Price.....\$60.00
- No. 8-Z-733—1 24" Troy Steam Collar and Cuff Ironer; belt driven. Price.....\$300.00
- No. 8-Z-734—1 Troy Gents' Double Cuff Press; steam heated. Price.....\$100.00
- No. 8-Z-735—1 36" Troy Single Treadle Body Ironer; steam heated. Price.....\$100.00
- No. 8-Z-736—1 No. 2 Troy Collar Dampener; belt driven. Price.....\$90.00
- No. 8-Z-737—1 Troy 26" x 27" Rough Dry Bundling Press. Price.....\$50.00
- No. 8-Z-738—1 No. 6 Troy Collar and Cuff Starcher. Price.....\$150.00
- No. 8-Z-739—1 American Ineeda Bosom Starcher; brass body. Price.....\$50.00
- No. 8-Z-741—30" Lutes Reverse Body Ironer. Gas heated top roll, 8" x 30". Bottom roll, 4" x 30". Tight and loose pulleys, 12" x 2½". Price, each.....\$75.00
- No. 8-Z-743—1 Zeider Gravity Seam Dampener. Price.....\$30.00
- No. 8-Z-745—1 Dampening Press. Wood frame. Flat table, 20" x 20". Hand screw feed. Price.....\$15.00
- No. 8-Z-746—1 Faultless Eyelet Raiser. Price.....\$6.00
- No. 8-Z-747—2 Litchfield Gas Machines. Price, each.....\$40.00
- No. 8-Z-748—1 Litchfield Gas Generator. Price.....\$15.00

GOVERNMENT HOT WATER STORAGE TANKS

- Lot No. 8-Z-304—Brand New Government Hot Water Storage Tanks, suitable for 65 lbs. water pressure. Can be used vertically or horizontally.
- 20-100 Gallon Capacity, 24 in. by 4 ft. Price each.....\$35.00
- 25-120 Gallon Capacity, 24 in. by 5 ft. Price each.....40.00
- 35-180 Gallon Capacity, 30 in. by 5 ft. Price each.....50.00
- 15-220 Gallon Capacity, 30 in. by 6 ft. Price each.....57.50
- 10-250 Gallon Capacity, 30 in. by 7 ft. Price each.....62.50
- 20-295 Gallon Capacity, 30 in. by 8 ft. Price each.....70.00

LOW PRESSURE HEATING BOILERS

- No. 8-Z-189—2 72" dia. 16' long Fire Box Heating Boilers; capacity, 12,000' steam radiation, 20,000' water radiation. Price, each.....\$1,000.00
- No. 8-Z-190—1 48" dia. 16' long Fire Box Heating Boiler; capacity, 5,000' steam radiation, 8,000' water radiation. Price.....\$500.00
- No. 8-Z-191—1 42" dia. 16' long Fire Box Heating Boiler; capacity, 2,800' steam radiation, 4,500' water radiation. Price.....\$375.00
- No. 8-Z-192—1 42" dia. 10' long Fire Box Heating Boiler; capacity, 2,600' steam radiation, 4,300' water radiation. Price.....\$350.00
- No. 8-Z-193—1 30" dia. 7' long Fire Box Heating Boiler; capacity, 1,000' steam radiation, 1,700' water radiation. Price.....\$175.00
- No. 8-Z-194—1 30" dia. 6' 6" long Fire Box Heating Boiler; capacity, 950' steam radiation, 1,600' water radiation. Price.....\$165.00
- No. 8-Z-195—1 30" dia. 6' long Fire Box Heating Boiler; capacity, 900' steam radiation, 1,500' water radiation. Price.....\$160.00
- No. 8-Z-196—1 27" dia. 5' long Fire Box Heating Boiler; capacity, 800' steam radiation, 1,400' water radiation. Price.....\$150.00

We Have What You Require!



RUBBER-LEATHER & CANVAS

BELTING

Owing to our enormous business in this line, we carry a large and complete stock of Belting and Supplies, insuring our customers prompt shipment of their orders. We earnestly advise that you note carefully the general purpose for which we recommend the use of our various grades and order accordingly.

RUBBER BELTING

possesses many advantages. The cotton duck being protected by the rubber cover, the belt is not affected by dampness, but will run in damp places. It is uniform in thickness and strength and will always run straight on the pulleys. Our rubber belts are thoroughly stretched in making and therefore do not stretch materially when placed in service. Adhere closely to the pulley, giving the best transmission of power.

"Invincible" Brand

3-Z-20. We recommend this belt for all heavy power transmission. It is used extensively in sawmills, quarries and other places where a belt is subjected to hard usage. This belt is one of the best on the market.

Width, In.	4-ply, Per ft.	5-ply, Per ft.	6-ply, Per ft.	
4	\$0.45	\$0.56	....
5	.56	.69	....
6	.66	.82	\$0.99	
7	.77	.98	1.16	TENSILE
8	.84	1.05	1.25	STRENGTH
9	.87	1.16	1.41	UNEQUALED
10	1.05	1.29	1.55	ECONOMICAL
12	1.25	1.55	1.86	
13	1.46	1.68	2.19	WILL GIVE
14	1.46	1.83	2.19	FIRST CLASS
15	1.55	1.95	2.49	SERVICE
16	1.67	2.09	2.81	
18	....	2.34	3.11	
20	....	2.60	3.72	
22	....	2.85	....
24	....	....	....

—FOR HEAVY WORK—

"Standard" Brand

3-Z-1. This brand is recommended only for light work, such as all work necessary on light machinery. This is the belt for a farmer or anyone who has light or medium work.

Width, Inches	3-ply, Per ft.	4-ply, Per ft.	
1	7c	....
1 1/4	9c	....	SMOOTH
1 1/2	11c	....	UNIFORM
2	16c	16c	SURFACE
2 1/2	17c	20c	
3	20c	23c	
3 1/2	23c	27c	FOR LIGHT
4	26c	29c	WORK IT
4 1/2	....	32c	CAN'T BE
5	....	36c	BEAT
6	37c	43c	
8	....	55c	

"Premier" Brand

3-Z-3. Brand new and the best general purpose belt on the market for medium power and conveying purposes. We do not recommend this belt for heavy work where belting is required to run constantly and transmit heavy horse power, but for other general purposes it will give you first class service.

Width, Inches	4-ply, Per ft.	5-ply, Per ft.	6-ply, Per ft.
3	\$0.30	....	....
4	.35	....	....
4 1/2	.42	....	....
5	.47	\$0.57	....
6	.56	.69	\$0.80
7	.65	.81	1.00
8	.69	.87	1.10
9	.78	1.08	1.20
10	.87	1.29	1.40
11	.95	1.41	1.60
12	1.04	1.52	1.80
13	1.13	1.62	1.90
14	1.23	1.74	2.00
15	1.29	1.86	2.10
16	1.38	1.98	2.20
18	1.56	....	....

CANVAS BELTING

Endless Canvas Belting



3-Z-11. Brand new and guaranteed. These belts are especially recommended for threshers or for any other purpose where a belt is exposed to the weather. Actual lengths are three feet shorter than specified, as it requires the price of three feet for lap and labor in making belts endless.

Width, Inches	50 ft.	75 ft.	100 ft.	125 ft.	150 ft.
4	\$11.70	\$21.30	\$28.20	....	....
5	17.10	24.90	33.00	\$40.80	....
6	19.50	28.50	37.50	46.50	\$55.50
7	21.90	32.10	42.30	52.50	62.40
8	....	....	....	....	69.00

Width, Inches	125 ft.	150 ft.	180 ft.
5	\$58.20	\$69.30	....
6	66.40	78.30	\$83.10
7	....	....	91.50

Width, Inches	150 ft.	180 ft.
8	\$ 93.90	\$ 99.90
9	103.50	110.40

"HARRIS" Brand

3-Z-9. This belt is the most serviceable for use outdoors, as it can not be injured by steam or water and can be run in places where the heat would injure a rubber or leather belt. It is made of heavy canvas woven very hard, giving it great strength. The rows of stitching are very close so that the plies will not separate. It is painted red with a special composition which makes it waterproof and it is not affected by heat or cold. This belt is thoroughly stretched during the process of manufacture and is adaptable for sawmills, mines, quarries, etc.

Width, Inches	4-ply, Per ft.	6-ply, Per ft.	
1 1/4	\$0.09	....
2	.12	....	Made of
2 1/2	.14	....	Heavy
3	.16	....	Canvas
3 1/2	.20	....
4	.22	\$0.33	
4 1/2	.24	....
5	.27	.41	
6	.32	.47	
7	.36	....	Perfectly
8	.41	.61	Woven
9	.45	....
10	.49	.73	
12	.62	.92	
14	.69	1.01	

White Woven Cotton Belting

3-Z-15. This white woven cotton belt is especially adapted for elevating and conveyor purposes. It is solid woven, making it the heaviest and strongest cotton belt on the market.

Width, Inches	2-ply, Per foot	3-ply, Per foot	4-ply, Per foot	5-ply, Per foot	6-ply, Per foot
1	\$0.03	\$0.05	....	....	....
1 1/4	.04	.07	....	....	....
1 1/2	.05	.07	....	....	....
2	.06	.08	\$0.11	....	....
2 1/2	.07	.09	.12	....	....
3	.08	.11	.14	....	....
3 1/2	.09	.12	.15	....	....
4	.10	.13	.18	....	....
4 1/2	.11	.15	.20	....	....
5	....	.16	.21	\$0.27	\$0.30
6	....	.19	.23	.33	....
6 1/2	....	.20	.26	....	....
7	....	.21	.27	....	....
8	....	.24	.30	.42	....
9	....	.30	.36	....	....
10	....	.33	.42	.57	....
12	....	....	.51	.66	....

New Rubber Belt

3-Z-25. A job stock of New Rubber Belt while we offer and cut to any lengths while they last at these special bargain prices.

Width, Inches	2-ply, per ft.	3-ply, per ft.	4-ply, per ft.
4 1/2
3 1/2

LEATHER BELTING

"The Best" Brand

3-Z-7. Our "The Best" Brand New Leather Belt is by far the best leather belt on the market, made of short lap, high grade stock from which the finest leather belt is made, cannot be beat for high speeds and heavy drives. Made endless to order at a charge of three foot extra for labor and lap.

Width, Inches	Single Thick, Per Ft.	Double Thick, Per Ft.	Width, Inches	Single Thick, Per Ft.	Double Thick, Per Ft.
2	\$0.34	....	5	\$1.72	....
2 1/2	.43	....	6	1.03	2.06
3	.52	\$1.04	7	1.21	2.42
3 1/2	.60	1.20	8	1.39	2.78
4	.70	1.40	10	3.46	....
4 1/2	.77	1.54	12	....	4.15

"Medium" Brand

3-Z-6. Medium Brand New Leather Belt is suitable for light and medium power transmission. It is constructed the same as the better grade, but the quality is of a lower cut. For farm machinery, light factory power, etc., there is no better belt on market. Made endless to order at a charge of three foot extra for labor and lap.

Width, Inches	Single Thick, Per Ft.	Double Thick, Per Ft.	Width, Inches	Single Thick, Per Ft.	Double Thick, Per Ft.
1	\$0.15	....	8	\$0.44	\$0.88
1 1/4	.18	....	3 1/2	.51	1.02
1 1/2	.21	....	4	.57	1.14
1 3/4	.26	....	4 1/2	.64	1.28
2	.29	\$0.58	5	.72	1.44
2 1/4	.35	.70	6	.87	1.74
2 1/2	.36	.72	7	....	2.00
2 3/4	.39	.78	8	....	2.30

Overhauled Leather Belting

3-Z-5. We rebuild and overhaul belts and when ready for shipment, they are for further use practically as good as new, with the exception that the stock course is overhauled. Made endless to order at a charge of three foot extra for labor and lap.

Width, Inches	Single Thick, Per Ft.	Double Thick, Per Ft.	Width, Inches	Single Thick, Per Ft.	Double Thick, Per Ft.
1	\$0.10	....	7	....	....
1 1/4	.12	....	8	....	....
1 1/2	.14	....	9	....	....
2	.19	\$0.38	10	....	....
2 1/4	.22	.44	11	....	....
2 1/2	.24	.48	12	....	....
2 3/4	.29	.58	13	....	....
3	.34	.68	14	....	....
3 1/2	.38	.76	15	....	....
4	.43	.86	16	....	....
4 1/2	.48	.96	17	....	....
5	.53	1.06	18	....	....
5 1/2	.58	1.16	20	....	....

BARGAIN LIST OF NEW RUBBER BELTING



EVERY Belt in this list is a big bargain. To secure them you should place your order now for such Belts as you need.

These remnants are all brand new and are practically made up of our "Standard" and "Premier" Brands. In addition to these brands of Belting, we are constantly buying special lots of high grade Belts. These special lots, you will understand, we cannot put out under our regular brands. We are obliged to sacrifice them, so include them in this remnant list.

In offering these Belts we make no distinction as to grade, but offer the various widths and plys at a low, flat price. When sending your orders for Belts selected from this list, please give a first, second and third choice.

Write us if you fail to find on these pages the exact belt you need. We will most probably have it on hand, as almost daily we buy large stocks of belting.

We suggest that in ordering Belts from this list, you state the purpose for which the Belt is to be used. With this information, we will be able to select such a Belt as will answer your requirements.

"Standard" Rubber Belt Remnants

We Guarantee These Standard Rubber Belt Remnants to meet the requirements of light work, such as all work necessary on a farm, and other places where a higher grade belt is not needed. We do not guarantee this belt for heavy work, such as is required in saw mills, quarries, coal mines, etc. If after 30 days' trial any defect in workmanship or material should appear, you may return same to us.

If these belts are intended for quarter twist kindly advise us.

Order No.	Width Inch	Ply	Feet Long	Price per Belt
-Z-1001	1	3	17	\$1.10
-Z-1002	1	3	20	1.30
-Z-1003	1	3	23	1.50
-Z-1004	1	3	24	1.56
-Z-1005	1	3	28	1.82
-Z-1006	1 1/4	3	15	1.28
-Z-1007	1 1/4	3	18	1.53
-Z-1008	1 1/4	3	20	1.70
-Z-1009	1 1/4	3	22	1.87
-Z-1010	1 1/4	3	25	2.13
-Z-1011	1 1/4	3	17	1.70
-Z-1012	1 1/4	3	18	1.80
-Z-1013	1 1/4	3	22	2.20
-Z-1014	1 1/4	3	23	2.30
-Z-1015	1 1/4	3	25	2.50
-Z-1016	1 1/4	3	28	2.80
-Z-1017	1 1/4	3	29	2.90
-Z-1018	1 1/4	3	30	3.00
-Z-1019	1 1/4	3	35	3.50
-Z-1020	1 1/4	3	37	3.70
-Z-1021	1 1/4	3	38	3.80
-Z-1022	1 1/4	3	40	4.00
-Z-1023	2	3	15	2.10
-Z-1024	2	3	18	2.52
-Z-1025	2	3	19	2.68
-Z-1026	2	3	20	2.80
-Z-1027	2	3	21	2.94
-Z-1028	2	3	24	3.36
-Z-1029	2	3	27	3.78
-Z-1030	2	3	29	4.06
-Z-1031	2	3	30	4.20
-Z-1032	2	3	33	4.62
-Z-1033	2	3	37	5.18
-Z-1034	2	3	38	5.32
-Z-1035	2	3	40	5.80
-Z-1036	2	3	42	6.08
-Z-1037	2	3	43	6.22
-Z-1038	2	3	45	6.50
-Z-1039	2	3	50	7.00
-Z-1040	2 1/2	3	13	2.08
-Z-1041	2 1/2	3	14	2.24
-Z-1042	2 1/2	3	15	2.40
-Z-1043	2 1/2	3	20	3.20
-Z-1044	2 1/2	3	24	3.84
-Z-1045	2 1/2	3	26	4.16

Order No.	Width Inch	Ply	Feet Long	Price per Belt
3-Z-1046	2 1/2	3	23	\$6.08
3-Z-1047	2 1/2	3	30	4.60
3-Z-1048	2 1/2	3	32	5.12
3-Z-1049	2 1/2	3	35	5.60
3-Z-1050	2 1/2	3	36	5.76
3-Z-1051	2 1/2	3	37	5.92
3-Z-1052	2 1/2	3	15	2.70
3-Z-1053	3	3	13	3.24
3-Z-1054	3	3	20	3.60
3-Z-1055	3	3	21	3.78
3-Z-1056	3	3	22	3.96
3-Z-1057	3	3	25	4.50
3-Z-1058	3	3	28	5.76
3-Z-1059	3	3	35	6.30
3-Z-1060	3	3	38	6.84
3-Z-1061	3	3	40	7.20
3-Z-1062	3	3	41	7.38
3-Z-1063	3	3	45	8.10
3-Z-1064	3	3	15	3.80
3-Z-1065	3 1/2	3	18	3.52
3-Z-1066	3 1/2	3	18	3.36
3-Z-1067	3 1/2	3	19	4.18
3-Z-1068	3 1/2	3	20	4.40
3-Z-1069	3 1/2	3	23	5.08
3-Z-1070	3 1/2	3	25	5.50
3-Z-1071	3 1/2	3	32	7.04
3-Z-1072	3 1/2	3	35	7.70
3-Z-1073	3 1/2	3	37	8.10
3-Z-1074	3 1/2	3	42	9.24
3-Z-1075	3 1/2	3	45	9.90
3-Z-1076	4	3	18	3.68
3-Z-1077	4	3	18	4.14
3-Z-1078	4	3	20	4.60
3-Z-1079	4	3	23	5.28
3-Z-1080	4	3	25	5.75
3-Z-1081	4	3	26	5.98
3-Z-1082	4	3	27	6.21
3-Z-1083	4	3	25	\$6.05
3-Z-1084	4	3	26	6.28
3-Z-1085	4	3	37	8.51
3-Z-1086	4	3	41	9.43
3-Z-1087	4	3	43	9.89
3-Z-1088	6	3	15	5.25
3-Z-1089	6	3	18	6.30
3-Z-1090	6	3	23	8.05
3-Z-1091	6	3	26	9.10
3-Z-1092	6	3	32	11.20
3-Z-1093	6	3	38	13.30
3-Z-1094	6	3	48	14.40
3-Z-1095	6	3	42	14.70
3-Z-1096	6	3	45	15.75
3-Z-1097	6	3	46	16.10
3-Z-1098	6	3	47	16.45
3-Z-1099	6	3	50	17.50
3-Z-1100	6	3	15	2.25
3-Z-1101	2	4	18	2.70
3-Z-1102	2	4	20	3.00
3-Z-1103	2	4	22	3.30
3-Z-1104	2	4	25	3.75
3-Z-1105	2	4	27	4.05
3-Z-1106	2	4	30	4.50
3-Z-1107	2	4	33	4.95
3-Z-1108	2	4	37	5.55
3-Z-1109	2	4	40	6.00
3-Z-1110	2	4	42	6.30
3-Z-1111	2	4	45	6.75
3-Z-1112	2 1/2	4	18	3.04
3-Z-1113	2 1/2	4	17	3.23
3-Z-1114	2 1/2	4	18	3.42
3-Z-1115	2 1/2	4	21	3.99
3-Z-1116	2 1/2	4	25	4.75
3-Z-1117	2 1/2	4	27	5.13
3-Z-1118	2 1/2	4	28	5.32
3-Z-1119	2 1/2	4	30	5.70

Order No.	Width Inch	Ply	Feet Long	Price per Belt
3-Z-1157	4	4	37	\$ 9.99
3-Z-1158	4	4	38	10.26
3-Z-1159	4	4	40	10.80
3-Z-1160	4 1/2	4	15	4.65
3-Z-1161	4 1/2	4	20	6.20
3-Z-1162	4 1/2	4	23	7.13
3-Z-1163	4 1/2	4	27	8.37
3-Z-1164	4 1/2	4	28	8.69
3-Z-1165	4 1/2	4	33	10.23
3-Z-1166	4 1/2	4	35	10.85
3-Z-1167	4 1/2	4	37	11.47
3-Z-1168	4 1/2	4	38	11.78
3-Z-1169	5	4	16	5.44
3-Z-1170	5	4	18	6.12
3-Z-1171	5	4	20	6.80
3-Z-1172	5	4	21	7.14
3-Z-1173	5	4	23	7.82
3-Z-1174	5	4	24	8.16
3-Z-1175	5	4	25	8.50
3-Z-1176	5	4	26	8.84
3-Z-1177	5	4	30	10.20
3-Z-1178	5	4	31	10.54
3-Z-1179	5	4	33	11.22
3-Z-1180	5	4	34	11.56
3-Z-1181	5	4	38	12.92
3-Z-1182	5	4	40	13.60
3-Z-1183	5	4	41	13.94
3-Z-1184	5	4	43	14.62
3-Z-1185	5	4	47	15.98
3-Z-1186	5	4	48	16.32
3-Z-1187	5	4	49	16.66
3-Z-1188	5	4	49	16.66
3-Z-1189	6	4	32	13.12
3-Z-1190	6	4	35	14.35
3-Z-1191	6	4	38	15.58
3-Z-1192	6	4	40	16.40
3-Z-1193	6	4	42	17.63
3-Z-1194	6	4	45	18.45
3-Z-1195	8	4	22	11.44
3-Z-1196	8	4	23	11.56
3-Z-1197	8	4	35	18.20
3-Z-1198	8	4	42	21.84
3-Z-1199	8	4	43	22.32
3-Z-1200	8	4	48	24.96
3-Z-1201	8	4	49	25.48
3-Z-1202	8	4	52	27.04

Miscellaneous Lot of Belting Snaps

New Endless Canvas Belt				
Length	Width	Ply		
59' 6"	14"	6	.....	\$41.00
59'	14"	6	.....	40.70
55' 2"	14"	6	.....	38.00
28' 4"	12"	6	.....	14.50
50' 6"	14"	6	.....	38.80
50' 8"	14"	6	.....	39.10

New Endless Rubber Belt				
Length	Width	Ply		
40'	22"	5	.....	\$60.00
New Rubber Belt				
115'	11"	3	per ft....	.31
79'	12"	5	.....	68.25
500'	8"	4	per ft....	.46
800'	10"	5	per ft....	.72
35' 6"	16"	5	.....	41.50
68'	12"	6	.....	70.00
88'	13"	4	.....	66.00
69'	13"	4	.....	45.00
37'	13"	4	.....	27.75
17'	13"	4	.....	12.75

Examine this list carefully for it contains belting for every purpose. New, slightly shopworn and second hand quoted at greatly reduced prices.

These bargains will go fast so make your selection early. If you do not find your belt in this list send us an outline of your needs. It is impossible to list our entire stock of belting on this page. Send us an inquiry.

Length	Width	Ply		
129'	15"	4	per ft....	\$ 1.00
187'	12"	4	per ft....	.69
500'	13"	5	per ft....	.95
74'	11"	4	.....	62.45
37'	22"	6	.....	60.50
22'	18"	6	.....	34.30
25'	13"	6	.....	39.00
32' 9"	17"	6	.....	48.10
40'	16"	8	.....	74.00

New Canvas Belt			
61'	18"	8	..... 68.95
60'	14"	6	..... 49.80
23'	14"	8	..... 26.70

Length	Width	Ply		
60'	16"	6	Slightly shopworn new canvas belt.....	\$59.40
24'	12"	5	2nd hand Canvas Belata Belt.....	13.80
11'	12"	6	New Canvas Belata Belt (slightly shopworn).....	7.60

Length	Width	Ply		
11'	12"	6	New Canvas Belata Belt (slightly shopworn).....	\$ 7.60
38'	15 1/2"	5	Second hand rubber belt.....	33.75
37'	20"	6	New Rubber Belt.....	64.00
33'	20"	6	Second hand Canvas Belata Belt.....	32.65
New Canvas Belt				
14 1/2'	20"	6	.....	13.85
14'	18"	4	.....	8.25
15'	18"	5	.....	10.60

RUBBER AND CANVAS BELT REMNANTS

"Invincible" Rubber Belt Remnants

We Guarantee Invincible Rubber Belt Remnants to meet the requirements of the hardest service such as sawmills, quarries and any place where a superior belt is required. Any time during 30 days from shipment, should these belts prove defective in workmanship or material you may return same to us and we will refund your money, also any freight charges you have paid. Our Invincible Belts are the best on the market and we can save you from 50 to 60 per cent. Kindly advise us if for quarter twist.

Order No.	Width Inch	Ply	Feet Long	Prices per Belt	Order No.	Width Inch	Ply	Feet Long	Prices per Belt	Order No.	Width Inch	Ply	Feet Long	Prices per Belt	Order No.	Width Inch	Ply	Feet Long	Prices per Belt	Order No.	Width Inch	Ply	Feet Long	Prices per Belt
3-Z-5001	4	4	15	\$6.30	3-Z-5047	8	4	28	\$21.84	3-Z-5093	4	5	28	\$14.56	3-Z-5139	10	5	42	\$50.40	3-Z-5185	8	6	38	\$44.08
3-Z-5002	4	4	18	7.56	3-Z-5048	8	4	31	24.18	3-Z-5094	4	5	30	15.60	3-Z-5140	10	5	45	54.00	3-Z-5186	8	6	40	46.40
3-Z-5003	4	4	21	8.82	3-Z-5049	8	4	33	25.74	3-Z-5095	4	5	33	17.16	3-Z-5141	10	5	47	56.40	3-Z-5187	8	6	41	47.56
3-Z-5004	4	4	22	9.24	3-Z-5050	8	4	35	27.30	3-Z-5096	4	5	37	19.24	3-Z-5142	10	5	50	60.00	3-Z-5188	8	6	45	52.20
3-Z-5005	4	4	23	9.66	3-Z-5051	8	4	38	29.64	3-Z-5097	4	5	39	20.28	3-Z-5143	10	5	54	64.80	3-Z-5189	8	6	47	54.52
3-Z-5006	4	4	25	10.50	3-Z-5052	8	4	40	31.20	3-Z-5098	5	5	26	16.64	3-Z-5144	10	5	60	72.00	3-Z-5190	8	6	48	55.68
3-Z-5007	4	4	28	11.76	3-Z-5053	8	4	41	31.98	3-Z-5099	5	5	27	17.28	3-Z-5145	10	5	62	74.40	3-Z-5191	8	6	49	56.84
3-Z-5008	4	4	31	13.02	3-Z-5054	8	4	44	34.32	3-Z-5100	5	5	30	19.20	3-Z-5146	10	5	63	75.60	3-Z-5192	8	6	50	58.00
3-Z-5009	4	4	32	13.44	3-Z-5055	8	4	50	39.00	3-Z-5101	5	5	32	20.48	3-Z-5147	10	5	65	78.00	3-Z-5193	9	6	52	55.44
3-Z-5010	4	4	33	13.66	3-Z-5056	9	4	32	27.84	3-Z-5102	5	5	34	21.76	3-Z-5148	12	5	84	48.96	3-Z-5194	9	6	47	62.04
3-Z-5011	4	4	35	14.70	3-Z-5057	9	4	37	32.10	3-Z-5103	5	5	35	22.40	3-Z-5149	12	5	38	54.72	3-Z-5195	10	6	31	44.64
3-Z-5012	4	4	38	15.96	3-Z-5058	9	4	50	43.50	3-Z-5104	5	5	38	24.32	3-Z-5150	12	5	40	57.60	3-Z-5196	10	6	33	47.52
3-Z-5013	5	4	17	8.84	3-Z-5059	10	4	32	31.36	3-Z-5105	5	5	40	25.60	3-Z-5151	12	5	43	61.92	3-Z-5197	10	6	35	50.40
3-Z-5014	5	4	22	11.44	3-Z-5060	10	4	36	35.28	3-Z-5106	5	5	42	26.88	3-Z-5152	12	5	48	69.12	3-Z-5198	10	6	38	54.72
3-Z-5015	5	4	24	12.48	3-Z-5061	10	4	38	37.24	3-Z-5107	5	5	43	27.52	3-Z-5153	12	5	50	72.00	3-Z-5199	10	6	40	57.60
3-Z-5016	5	4	26	13.52	3-Z-5062	10	4	42	41.16	3-Z-5108	6	5	21	17.56	3-Z-5154	12	5	58	83.52	3-Z-5200	10	6	46	66.24
3-Z-5017	5	4	28	14.56	3-Z-5063	10	4	44	43.12	3-Z-5109	6	5	23	19.55	3-Z-5155	12	5	59	84.96	3-Z-5201	10	6	50	72.00
3-Z-5018	5	4	33	17.16	3-Z-5064	10	4	47	46.06	3-Z-5110	6	5	25	21.25	3-Z-5156	12	5	60	86.40	3-Z-5202	10	6	53	76.32
3-Z-5019	5	4	34	17.68	3-Z-5065	10	4	48	47.04	3-Z-5111	6	5	27	22.95	3-Z-5157	13	5	42	65.94	3-Z-5203	10	6	55	79.20
3-Z-5020	5	4	35	18.20	3-Z-5066	10	4	52	50.95	3-Z-5112	6	5	30	25.50	3-Z-5158	13	5	60	94.20	3-Z-5204	10	6	58	83.28
3-Z-5021	5	4	37	19.24	3-Z-5067	10	4	55	53.85	3-Z-5113	6	5	32	27.00	3-Z-5159	14	5	37	62.53	3-Z-5205	10	6	60	86.40
3-Z-5022	5	4	40	20.80	3-Z-5068	10	4	60	58.80	3-Z-5114	6	5	37	29.75	3-Z-5160	14	5	39	65.91	3-Z-5206	10	6	65	93.60
3-Z-5023	5	4	43	22.36	3-Z-5069	10	4	62	60.76	3-Z-5115	6	5	40	34.00	3-Z-5161	14	5	52	87.88	3-Z-5207	12	6	33	57.42
3-Z-5024	5	4	45	23.40	3-Z-5070	10	4	65	63.70	3-Z-5116	6	5	42	35.70	3-Z-5162	14	5	53	89.57	3-Z-5208	12	6	35	60.90
3-Z-5025	5	4	47	24.44	3-Z-5071	12	4	38	34.80	3-Z-5117	6	5	48	40.80	3-Z-5163	14	5	56	94.64	3-Z-5209	12	6	40	69.60
3-Z-5026	5	4	48	24.96	3-Z-5072	12	4	40	36.72	3-Z-5118	6	5	50	42.50	3-Z-5164	14	5	58	96.98	3-Z-5210	12	6	43	74.82
3-Z-5027	6	4	24	14.88	3-Z-5073	12	4	43	38.64	3-Z-5119	6	5	52	44.20	3-Z-5165	15	5	64	116.48	3-Z-5211	12	6	45	78.30
3-Z-5028	6	4	27	16.73	3-Z-5074	12	4	44	40.56	3-Z-5120	7	5	41	37.31	3-Z-5166	15	5	58	113.10	3-Z-5212	12	6	47	81.78
3-Z-5029	6	4	29	17.97	3-Z-5075	12	4	44	41.04	3-Z-5121	7	5	43	39.13	3-Z-5167	18	5	65	141.70	3-Z-5213	12	6	50	87.00
3-Z-5030	6	4	30	18.60	3-Z-5076	12	4	45	42.00	3-Z-5122	8	5	25	24.50	3-Z-5168	6	6	16	18.00	3-Z-5214	12	6	53	92.22
3-Z-5031	6	4	33	20.46	3-Z-5077	12	4	47	44.52	3-Z-5123	8	5	27	26.46	3-Z-5169	6	6	18	19.56	3-Z-5215	12	6	55	95.70
3-Z-5032	6	4	35	21.70	3-Z-5078	12	4	50	47.40	3-Z-5124	8	5	28	27.44	3-Z-5170	6	6	23	21.16	3-Z-5216	12	6	57	99.18
3-Z-5033	6	4	37	22.94	3-Z-5079	12	4	52	49.32	3-Z-5125	8	5	30	29.40	3-Z-5171	6	6	25	23.00	3-Z-5217	12	6	60	104.40
3-Z-5034	6	4	40	24.80	3-Z-5080	12	4	54	62.64	3-Z-5126	8	5	33	32.34	3-Z-5172	6	6	27	24.84	3-Z-5218	12	6	65	113.10
3-Z-5035	6	4	41	25.42	3-Z-5081	12	4	60	69.80	3-Z-5127	8	5	35	34.30	3-Z-5173	6	6	30	27.60	3-Z-5219	14	6	32	65.28
3-Z-5036	6	4	42	26.04	3-Z-5082	12	4	65	75.40	3-Z-5128	8	5	37	36.26	3-Z-5174	6	6	32	30.30	3-Z-5220	14	6	35	71.40
3-Z-5037	6	4	43	26.66	3-Z-5083	14	4	35	47.60	3-Z-5129	8	5	40	41.16	3-Z-5175	6	6	34	31.28	3-Z-5221	14	6	37	75.48
3-Z-5038	6	4	44	27.28	3-Z-5084	14	4	40	54.40	3-Z-5130	8	5	44	43.12	3-Z-5176	6	6	37	34.04	3-Z-5222	14	6	40	81.60
3-Z-5039	7	4	24	17.04	3-Z-5085	14	4	50	81.60	3-Z-5131	8	5	48	48.84	3-Z-5177	6	6	40	36.80	3-Z-5223	14	6	45	91.80
3-Z-5040	7	4	25	17.75	3-Z-5086	15	4	30	72.00	3-Z-5132	8	5	50	48.80	3-Z-5178	6	6	42	38.64	3-Z-5224	14	6	48	97.92
3-Z-5041	7	4	26	18.30	3-Z-5087	16	4	45	65.10	3-Z-5133	8	5	53	51.94	3-Z-5179	7	6	40	44.20	3-Z-5225	14	6	53	108.12
3-Z-5042	7	4	27	18.90	3-Z-5088	16	4	47	67.20	3-Z-5134	9	5	47	51.76	3-Z-5180	7	6	45	48.60	3-Z-5226	14	6	58	122.40
3-Z-5043	7	4	28	19.50	3-Z-5089	16	4	50	70.20	3-Z-5135	9	5	52	56.16	3-Z-5181	8	6	30	34.80	3-Z-5227	16	6	40	92.80
3-Z-5044	8	4	23	17.94	3-Z-5090	4	5	22	11.44	3-Z-5136	10	5	34	40.80	3-Z-5182	8	6	33	38.28	3-Z-5228	18	6	30	157.20
3-Z-5045	8	4	24	18.72	3-Z-5091	4	5	25	13.00	3-Z-5137	10	5	37	44.40	3-Z-5183	8	6	34	39.44					
3-Z-5046	8	4	25	19.50	3-Z-5092	4	5	26	13.52	3-Z-5138	10	5	39	46.90	3-Z-5184	8	6	37	42.92					

Red Stitched Canvas Belt Remnants Brand New, Excellent Quality

Order No.	Width Inch	Ply	Feet long	Prices per Belt	Order No.	Width Inch	Ply	Feet long	Prices per Belt	Order No.	Width Inch	Ply	Feet long	Prices per Belt	Order No.	Width Inch	Ply	Feet long	Prices per Belt	Order No.	Width Inch	Ply	Feet long	Prices per Belt
3-Z-3001	1 1/2	4	15	\$ 1.28	3-Z-3030	3 1/2	4	22	\$ 4.29	3-Z-3059	6	4	25	\$ 7.50	3-Z-3088	10	4	50	\$23.50	3-Z-3117	6	6	42	\$18.90
3-Z-3002	1 1/2	4	25	2.17	3-Z-3031	3 1/2	4	23	5.46	3-Z-3060	6	4	24	10.20	3-Z-3089	10	4	55	25.85	3-Z-3118	8	6	45	8.85
3-Z-3003	1 1/2	4	31	2.85	3-Z-3032	3 1/2	4	30	6.85	3-Z-3061	6	4	36	10.80	3-Z-3090	12	4	32	18.88	3-Z-3119	8	6	20	11.80
3-Z-3004	1 1/2	4	37	3.10	3-Z-3033	3 1/2	4	32	6.24	3-Z-3062	6	4	38	11.40	3-Z-3091	12	4	37	21.83	3-Z-3120	8	6	24	14.16
3-Z-3005	1 1/2	4	40	3.80	3-Z-3034	3 1/2	4	36	7.02	3-Z-3063	6	4	42	12.60	3-Z-3092	12	4	43	25.37	3-Z-3121	8	6	30	17.70
3-Z-3006	1 1/2	4	42	3.52	3-Z-3035	3 1/2	4	38	7.41	3-Z-3064	7	4	15	5.25	3-Z-3093	12	4	46	27.14	3-Z-3122	8	6	32	18.98
3-Z-3007	1 1/2	4	44	3.75	3-Z-3036	4	4	15	3.15	3-Z-3065	7	4	18	6.30	3-Z-3094	12	4	48	28.32	3-Z-3123	8	6	37	21.83
3-Z-3008	2	4	24	2.70	3-Z-3037	4	4	17	3.57	3-Z-3066	7	4	20	7.00	3-Z-3095	12	4	50	30.68	3-Z-3124	8	6	40	23.60
3-Z-3009	2	4	24	3.00	3-Z-3038	4	4	20	4.20	3-Z-3067	7	4	25	12.25	3-Z-3096	12	4	54	31.86	3-Z-3125	10	6	30	21.30
3-Z-3010	2	4	32	3.42	3-Z-3039	4	4	24	5.94	3-Z-3068	7	4	38	13.00	3-Z-3097	14	4	30	19.30	3-Z-3126	10	6	34	24.14
3-Z-3011	2	4	32	3.55	3-Z-3040	4	4	25	6.25	3-Z-3069	7	4	40	14.00	3-Z-3098	14	4	35	22.75	3-Z-3127	10	6	38	26.90
3-Z-3012	2	4	36	4.02	3-Z-3041	4	4	32	7.56	3-Z-3070	8	4	17	6.63	3-Z-3099	14	4	38	24.70	3-Z-3128	10	6	40	28.40
3-Z-3013	2	4	38	4.28	3-Z-3042	4	4	40	8.40	3-Z-3071	8	4	22	8.58	3-Z-3100	14	4	42	27.30	3-Z-3129	10	6	42	29.80
3-Z-3014	2	4	40	4.50	3-Z-3043	4 1/2	4	18	4.14	3-Z-3072	8	4	28	10.92	3-Z-3101	14	4	45	29.25	3-Z-3130	10	6	48	34.00
3-Z-3015	2 1/2	4	15	2.03	3-Z-3044	4 1/2	4	22	5.96	3-Z-3073	8	4	30	11.70	3-Z-3102	14	4	50	33.50	3-Z-3131	10	6	55	39.00
3-Z-3016	2 1/2	4	20	2.97	3-Z-3045	4 1/2	4	24	6.21	3-Z-3074	8	4	31	12.09	3-Z-3103	14	4	55	35.25	3-Z-3132	12	6	35	28.14
3-Z-3017	2 1/2	4	22	3.32	3-Z-3046	4 1/2	4	24	7.02	3-Z-3075	8	4	32	12.48	3-Z-3104	5	6	15	5.85	3-Z-3133	12	6	35	31.45
3-Z-3018	2 1/2	4	34	4.59	3-Z-3047	4 1/2	4	36	8.28	3-Z-3076	8	4	39	15.21	3-Z-3105	5	6	20	7.80	3-Z-3134	12	6	38	33.60
3-Z-3019	2 1/2	4	37	5.00	3-Z-3048	4 1/2	4	38	8.74	3-Z-3077	9	4	18	7.92	3-Z-3106	5	6	24	9.36	3-Z-3135	12	6	40	35.60
3-Z-3020	2 1/2	4	39	5.27	3-Z-3049	4 1/2	4	40	9.20	3-Z-3078	9	4	25	11.00	3-Z-3107	5	6	30	11.70	3-Z-3136	12	6	44	39.40
3-Z-3021	2 1/2	4	40	5.40	3-Z-3050	5	4	15	3.90	3-Z-3079	9	4	28	12.76	3-Z-3108	5	6	32	12.45	3-Z-3137	12	6	50	44.50
3-Z-3022	3	4	15	2.40	3-Z-3051	5	4	17	4.02	3-Z-3080	9	4	23	14.08	3-Z-3109	5	6	38	14.04	3-Z-3138	12	6	54	48.00
3-Z-3023	3	4	20	3.20	3-Z-3052	5	4	20	5.20	3-Z-3081	9	4	37	16.28	3-Z-3110	5	6	40	15.60	3-Z-3139	14	6	32	31.60
3-Z-3024	3	4	26	4.16	3-Z-3053	5	4	28	7.28	3-Z-3082	9	4	40	17.60	3-Z-3111	6	6	18	8.10	3-Z-3140	14	6	36	35.60
3-Z-3025	3	4	32	5.12	3-Z-3054	5	4	32	8.32	3-Z-3083	10	4	30	14.40	3-Z-3112	6	6	22	9.90	3-Z-3141	14	6	40	39.60
3-Z-3026	3	4	35	5.60	3-Z-3055	5	4	37	9.32	3-Z-3084	10	4	35	16.45	3-Z-3113	6	6	28	9.60	3-Z-3142	14	6	45	44.55
3-Z-3027	3	4	38	6.08	3-Z-3056	5	4	40	10.40	3-Z-3085	10	4	40	17.86	3-Z-3114	6	6	35	10.50	3-Z-3143	14	6	48	47.40
3-Z-3028	3	4	40	6.40	3-Z-3057	6	4	16	4.80	3-Z-3086	10	4	42	19.74	3-Z-3115	6	6	38	17.10	3-Z-3144	14	6	53	52.40
3-Z-3029	3 1/2	4	13	3.51	3-Z-3058	6	4	21	6.30	3-Z-3087	10	4	45	21.15	3-Z-3116	6	6	40	18.00	3-Z-3145	14	6	55	54.40

Belting Supplies, Packing, Elevator Buckets, Etc.

'Adams' Canvas Pulley Covering

Prevents belts slipping. Threshermen appreciate it, saves power and money. Can run with loose belt. Lessens friction on bearings and shaft. It is easily applied without rivets and is durable.

Put up in convenient outfits, consisting of Canvas, Cement, Brush and Scraper for applying. Lot No. 3-Z-102. Outfit No. 3. Sufficient for 10 sq. ft. of pulley surface.....\$4.10

\$4.10



Perfection Belt Dressing



Prevents belt from slipping. Contains nothing that is injurious to the belt. Put up in 1 lb. sticks.

Lot No. 3-Z-104. Price per stick.....25c

Side Lace Leather

Raw Hide
Lace Leather, made from the strongest toughest native hides. We do not cut hides.



Lot No. 3-Z-25 Price per side
Sides contain about 8 sq. ft.....\$3.60
Sides contain about 10 sq. ft.....4.50
Sides contain about 12 sq. ft.....5.40
Sides contain about 15 sq. ft.....6.75
Sides contain about 18 sq. ft.....8.10

Adjustable Lace Leather Cutters

Made especially for cutting Raw Hide Lace Leather. Cutters of finely tempered steel.



Lot No. 3-Z-26. Price each.....55c

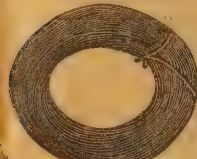
Cut Raw Hide Lace Leather



Made of the finest selected hides. Put up in bundles containing 50 to 100 feet. We guarantee that this is the toughest and best quality of cut lace leather on the market.

Lot No. 3-Z-24.
Width, inches... 1/4 3/8 1/2 5/8
Price, 50 feet... \$0.50 \$0.60 \$0.75 \$1.05 \$1.25
Price, 100 feet... .95 1.15 1.40 2.00 2.40

Composition Wire Belt Lace



The strongest wire belt lace manufactured. Tensile strength being 2,000 lbs.; will stand a far greater strain than is estimated in the driving capacity of a belt. Is better than hooks. Put up in boxes of 50 feet.

Lot No. 3-Z-32. Price per Box
No 1. For belts 6 inches wide and under.....\$0.50
No 2. For all double leather belts less than 8 inches and for all rubber belts 5 ply or heavier......55
No 3. For double belts above 8 inches in width......60

Red Sheet Packing

Equal to the highest grade on the market. It is intended for general use and will not harden under the most extreme heat, and is very satisfactory for making gaskets, etc. Put up in rolls 36 in. wide. We do not cut rolls lengthwise, but will furnish any quantity one yard wide and any length desired. It weighs 6 pounds to sq. yd. and 1/4"-12 pounds. Sizes, in stock, 1/16 and 1/8 inch. Lot No. 3-Z-15. Price, per lb.....83c



Elevator Buckets OVERHAULED

Lot No. 3-Z-1072. The following represents an accumulation of Salem Elevator Buckets from our Factory slightly Shop Worn but overhauled and for further use are just as good as our regular stock. We offer them while they last at these bargain prices which are less than cost.



When ordering, advise whether for flat belt or chain links. If for chain, advise number of chain and style of attachment link, so that we can punch them accordingly.

Quantity	Width Ins.	Projection Ins.	Each
199	3	3	\$0.05
690	3 1/2	3	.05
484	3 1/2	3 1/2	.05
1408	4	3	.07
1209	4	3 1/2	.07
58	4 1/2	3	.07
417	4 1/2	3 1/2	.07
204	5	3 1/2	.09
988	5 1/2	4	.09
539	5 1/2	4 1/2	.09
295	5 1/2	4	.11
35	6	4	.11
295	6	4 1/2	.11
611	6	4 1/2	.11
29	6	5	.11
390	7	4 1/2	.12
267	7	4	.13
110	7	4 1/2	.15
47	8	4	.15
59	8	4 1/2	.17
73	8	5	.19
149	9	4 1/2	.20
62	9	5 1/2	.20
6	9	6	.20
60	10	5	.22
23	10	6	.23
29	10	7	.24
81	11	5	.28
39	11	6	.30
11	12	7	.32
37	12	7	.35
45	13	7	.36
56	14	6	.40
73	14	7	.40
45	15	7	.40
19	16	6	.45
138	16	7	.45
40	18	6	.50
14	18	7	.50
200	20	6	.60
2	20	7	.60

Steel Belt Punch

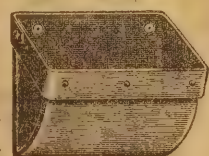


To drive. Made of solid tool steel, drilled and reamed. Lot No. 3-Z-27.

Size No.	Hole Inches	Price Each	Size No.	Hole Inches	Price Each
11	1/4	.45c	13	5/16	.55c
12	9/32	.50c			

Tin Mill Buckets

3-Z-925. The Smaller sizes are made of tin and the larger of Smooth Refined Steel, the ends are double seamed to the body. For strength and smoothness of finish has no superior.



They are guarded with band iron, firmly riveted to the body, making the shape is especially adapted to discharge readily.

Width Belt	Projection	Price Each	Width Belt	Projection	Price Each
2 1/2	2 1/2	.15c	4 1/2	3 1/2	.21c
3	3	.15c	5	4	.24c
3 1/2	3	.15c	5 1/2	4	.26c
4	3	.18c	6	4	.27c
4	3 1/2	.20c			

Spiral Graphite Packing

Spiral Graphite Packing. Made of the very best quality of stock, guaranteed to give satisfaction. Put up in boxes containing 12 feet, and in sizes from 1/4" up to and including 7". Lot No. 3-Z-23. Price per lb. (any size).....75c



Alligator Steel Belt Lacing



Just a hammer to apply it. Packed in boxes, complete with pins.

Lot No. 3-Z-15. For light narrow single leather or fabric belts 1/4 to 3/4 inch thick. Packed in 8-inch lengths containing sufficient for 64 inches in width of belting. Per box.....\$1.65
Lot No. 3-Z-20. For single leather belts, three ply fabric, etc., up to 3/4 inch thick. Packed in 12-inch lengths, containing sufficient for 60 inches in width of belting. Per box.....\$1.65
Lot No. 3-Z-25. For single leather and fabric belts from 3/4 inch to 1 inch thick. Packed in 8-inch lengths containing sufficient for 48 inches in width of belting. Per box.....\$1.60
Lot No. 3-Z-35. For double leather 5 ply rubber, cotton or balata belts, 1/2 to 3/4 inch thick. Packed in 8-inch lengths containing sufficient for 32 inches in width of belting. Per box.....\$1.45
Lot No. 3-Z-45. For heavy double leather and 6 ply belts up to 1 inch thick. Packed in 12-inch lengths containing sufficient for 48 inches in width of belting. Per box.....\$2.80



Giant Belt Hooks

For leather, rubber and cotton belts. Have double the strength of any other wire belt hooks that are made. Make perfect joints. No tool required but a hammer to insert them.

Lot No. 3-Z-30. Put up in boxes containing 250.
Size A. Approximate length, 3/4 inch. Single length belts. Price per box......55c
Size B. Approximate length, 1 inch. For heavy single and light double leather belts. Price per box......60
Size C. Approximate length, 1 1/4 inches. For heavy double length belts. Price per box......75c
Size D. Approximate length, 1 1/2 inches. 4-ply rubber or cotton belt. Price per box......80c
Size E. Approximate length 1 3/4 inches. 5- and 6-ply rubber or cotton belt. Price per box......90c

Steel Belt Lacing

Made of special steel, easily applied, making a smooth joint. The teeth are widely spaced and therefore does not cut the belt. Packed in boxes containing 100 inches in assorted lengths. In ordering hooks be sure and state kind and thickness of belt with which they are to be used.



Lot No. 3-ZA-1. For single leather, rubber and canvas belts, up to 4-ply not wider than 6 inches. Price per box......75c
Lot No. 3-Z-1. For single leather, rubber and canvas belts, 4-ply, 6 to 10 inches wide. Price per box......90c
Lot No. 3-Z-2. For double leather, rubber and canvas belts, up to 6-ply, 12 inches and wider. Price per box.....\$1.20

Pointed Belt Awl-Perforator



A handy tool for perforating belts. We recommend the pointed belt awl for preparing belts to be spliced with lace leather, wire, etc.; will not cut threads of fabric, but simply separate them. Can be used for many other things.

Lot No. 3-Z-28. Price each......50c

Elevator Bucket Bolts



We carry a complete stock of elevator, bucket bolts, corrugated, slotted and flat head, etc. Special prices gladly furnished on application.

Lot No.	3-Z-927.	
Dia. In.	Length In.	
1/4	1/2	Price per box of 100.....\$0.85
1/4	3/4	Price per box of 100......90
1/4	1	Price per box of 100......95
1/4	1 1/4	Price per box of 100.....1.00
1/4	1 1/2	Price per box of 100.....1.05

Shafting and Shaft Line Supplies

Recent great purchases of complete plants and factories secured thousands of feet of perfect shafting absolutely straight and as good as new for further service. This shafting is guaranteed to be free from all defects.

No matter what your requirements are in Pulleys, Shafting, Hangers, Belting, etc., we can supply anything you need for power and transmission of every description. Give us a general idea of the conditions you will have to meet—let us solve your problem; let us save time and money for you.

Brand new Cold Rolled Steel Shafting at factory prices. Cut to any length up to 24 feet. Where longer shafts are required, it is necessary that two pieces be used together with coupling.

We also have a large stock of second-hand shafting, 1 15/16 inch and larger in diameter, which we quote subject to stock being on hand at time of receiving order.

When we are out of second-hand shafting, we will substitute new Shafting at prices quoted on new, unless we are advised to the contrary.

16-Z-1. Brand New				SHAFTING				16-Z-3 Second-Hand			
Prices on Shafting Subject to Change Without Notice											
Size, inches	1	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4
Weight per ft., lbs.	1 1/2	2 1/2	3 3/4	4 3/4	5 3/4	6	7 1/2	10	12 1/2	14	16
Second-hand, per ft.								40c	51c	65c	80c
Brand New, per ft.	20c	29c	32c	42c	47c	53c	63c	75c	87c	100c	115c
Size, inches	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5
Weight, per ft., lbs.	16	19 1/2	23	27 1/2	31 1/2	36 1/2	41 1/2	46 1/2	51 1/2	56 1/2	61 1/2
Second Hand, per ft.	64c	77c	92c	\$1.09	\$1.26	\$1.46	\$1.66	\$1.86	\$2.06	\$2.26	\$2.46
Brand new, per ft.	\$1.10	\$1.33	\$1.60	\$2.03	\$2.37	\$2.88	\$3.25	\$3.62	\$4.00	\$4.37	\$4.75

Adjustable Post Hangers

Brand new adjustable Ball and Socket Double Brace Post Hangers, with plain wick oiling bearings up to 2 1/2", 3", 3 1/2" Ring Oiling Bearings.

16-Z-7. Made with adjusting socket connection with plunger screws, true ball and bearing and ample adjustment.

Size, inch	1	1 1/8	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4
Price, each	\$3.00	\$3.00	\$4.00	\$4.00	\$4.25	\$4.25	\$5.25	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00	\$6.00
Size, inch	2 1/2	2 3/4	3	3 1/4	3 1/2	3 3/4	4	4 1/4	4 1/2	4 3/4	5	5 1/4	5 1/2
Price, each	\$8.25	\$9.25	\$12.50	\$14.50	\$18.00	\$19.80	\$23.35	\$30.15					

Brand New Drop Hangers

Double Brace, Adjustable, Ball and Socket, Wick Oiling, Drop Hangers, Standard Bearings.

16-Z-9. Our Hangers are the equal of any hangers on the market. They are as good as the best material and finest workmanship can make them. We use only the very best grade of babbit applicable to shafting service, which is securely anchored to the castings and machined up by special process.

Shaft, Inches	Drop in Inches									
	8	10	12	14	16	18	20	22	24	26
1 1/2	\$2.75	\$3.00	\$3.25	\$3.75						
1 3/4	2.75	3.00	3.25	3.75						
2	3.00	3.25	3.50	4.00						
2 1/4	3.00	3.25	3.50	4.00	\$4.25	\$4.75				
2 1/2	3.25	3.50	3.75	4.25	4.50	5.00				
2 3/4	3.25	3.50	3.75	4.25	4.50	5.00				
3	4.50	4.75	5.00	5.50	5.75	6.00	\$6.50			
3 1/4	5.25	5.50	5.75	6.25	6.50	6.75	7.25			

Write for prices on larger sizes. We can also furnish both ring and plain-wick oiling hangers.

Overhauled Drop Hangers

16-Z-11. We offer second-hand Drop Hangers, subject to stock being on hand at time order is received. Should we not have second-hand hangers in the sizes desired we will substitute new hangers, at prices quoted, unless otherwise advised. The boxes of our second-hand Drop Hangers are babbit and are guaranteed to be in first class condition. When necessary we rebabbit them, good as new.

Size, Shaft Inches	Drop in Inches									
	8	10	12	14	16	18	20	22	24	26
1 1/2	\$2.00	\$2.15	\$2.40	\$2.65	\$2.75	\$3.00	\$3.10	\$3.50		
1 3/4	2.65	2.75	3.00	3.25	3.35	3.50	3.60	3.90	\$5.90	\$6.90
2	3.00	3.15	3.40	3.65	3.75	3.90	4.00	4.25	6.25	7.25
2 1/4	4.15	4.25	4.40	4.75	4.85	5.15	5.25	5.65	7.50	9.00
2 1/2	4.65	4.75	4.90	5.25	5.25	5.65	5.75	6.15	8.00	9.50
2 3/4	5.75	5.85	6.50	7.00	7.15	8.00	8.15	8.75	11.00	12.50
3	6.75	6.90	7.50	8.00	8.20	9.00	9.15	9.75	12.00	13.50
3 1/4	9.75	9.90	10.25	11.25	11.40	12.50	12.50	13.75	15.25	16.75
3 1/2	10.75	11.00	11.25	12.25	12.40	13.50	14.00	14.25	16.25	17.75
3 3/4	12.75	13.00	13.25	14.25	14.40	15.75	16.00	16.75	18.75	20.25
4	13.75	14.00	14.25	15.25	15.50	16.75	17.00	17.75	19.75	21.25

Brand New Rigid Post Blocks

16-Z-15. Standard bearing, lubricated through cup cast in cap. Babitted with the best grade of babbit for shaft service. Sizes given are the diameter of shaft. Strength of design is a feature.

Inch	Each	Inch	Each	Inch	Each	Inch	Each
3/4	\$1.25	1 1/8	\$1.95	2 1/8	\$4.60	3 1/8	\$8.65
1	1.25	1 1/2	1.95	2 3/8	5.25	3 3/8	11.70
1 1/8	1.65	1 3/4	2.50	2 7/8	6.30	3 7/8	14.80
1 1/4	1.65	2	3.10	3	7.60	4	17.85

16-Z-17 Brand New Safety Set Collars for Shafting

Inch	3/4	1	1 1/8	1 1/2	1 3/4	1 7/8	1 3/4
Each	24c	24c	30c	30c	38c	38c	45c
Inch	2 1/8	2 1/2	2 3/4	2 7/8	3 1/8	3 1/4	3 1/2
Each	60c	68c	80c	90c	\$1.02	\$1.13	\$1.28

Overhauled CAST IRON PULLEYS Brand New

16-Z-35. We have an enormous stock of overhauled or second hand Iron Pulleys in first class condition, perfectly balanced and for further service practically as good as new. As our stock constantly changes and while we offer a line of sizes, we can not guarantee to furnish second hand pulleys in every instance, so when we are out of second hand pulleys as ordered we will take the liberty of substituting new Iron Pulleys at new prices, unless advised to the contrary. Overhauled Iron Pulleys are fitted with set screws only. Where pulley is ordered "key seated" we will do this work, making small extra charge.

16-Z-31. Brand new iron pulleys, made of the very best of gray iron, machine moulded and guaranteed to be perfectly balanced. Single belt pulleys are made to transmit power of a single leather belt or a 4-ply fabric belt. Double belt pulleys should be used where a double leather belt or a 5- or 6-ply fabric belt is used for heavy transmission of power. We furnish pulleys bored to fit any size shaft and fitted with either set screws or key seated without extra charge. If both key seat and set screws are wanted we require an additional small charge. These pulleys have to be made, which takes about 4 days.

Dia. In.	Face In.	Single Belt.	Double Belt.
6	3	\$1.10	.....
6	4	1.25	.....
6	5	1.45	.....
6	6	1.60	.....
6	7	1.80	\$2.05
6	8	2.05	2.30
7	3	1.20	.....
7	4	1.40	.....
7	5	1.55	.....
7	6	1.75	.....
7	7	2.00	2.20
7	8	2.20	2.45
8	3	1.35	.....
8	4	1.50	.....
8	5	1.70	.....
8	6	1.90	2.15
8	7	2.15	2.40
8	8	2.40	2.65
8	9	2.60	2.85
8	10	2.80	3.05
9	3	1.45	.....
9	4	1.65	.....
9	5	1.85	.....
9	6	2.05	2.35
9	7	2.30	2.60
9	8	2.55	2.80
9	9	2.80	3.05
9	10	3.05	3.30
10	3	1.55	.....
10	4	1.75	.....
10	5	1.95	.....
10	6	2.20	2.50
10	7	2.45	2.80
10	8	2.75	3.10
10	9	3.00	3.40
10	10	3.25	3.70
12	3	1.80	.....
12	4	2.05	.....
12	5	2.30	.....
12	6	2.55	2.90
12	7	2.80	3.15
12	8	3.05	3.40
12	9	3.30	3.65
12	10	3.55	3.90
13	3	2.00	.....
13	4	2.20	.....
13	5	2.45	.....
13	6	2.75	3.10
13	7	3.00	3.35
13	8	3.25	3.60
13	9	3.50	3.85
13	10	3.75	4.10
14	3	2.05	.....
14	4	2.35	.....
14	5	2.55	.....
14	6	2.90	3.35
14	7	3.25	3.75
14	8	3.60	4.15
14	9	3.95	4.55
14	10	4.30	4.95
15	3	2.20	.....
15	4	2.45	.....
15	5	2.65	.....
15	6	3.05	3.60
15	7	3.45	4.05
15	8	3.85	4.45
15	9	4.25	4.85
15	10	4.65	5.25
16	3	2.35	.....
16	4	2.60	.....
16	5	2.90	.....
16	6	3.25	3.75
16	7	3.65	4.25
16	8	4.10	4.70
16	9	4.55	5.15
16	10	5.00	5.60
16	12	5.85	6.45
16	14	6.75	7.30
17	3	2.45	.....
17	4	2.75	.....
17	5	3.15	.....
17	6	3.50	3.90
17	7	3.95	4.40
17	8	4.40	4.90
17	9	4.85	5.40
17	10	5.30	5.90
17	12	6.15	6.75
18	3	2.60	.....
18	4	2.95	.....
18	5	3.30	.....
18	6	3.70	4.30
18	7	4.15	4.80
18	8	4.65	5.30
18	9	5.15	5.80
18	10	5.65	6.30
18	12	6.50	7.15
18	14	7.40	8.00
19	3	2.75	.....
19	4	3.15	.....
19	5	3.55	.....
19	6	3.95	4.55
19	7	4.40	5.05
19	8	4.90	5.55
19	9	5.40	6.05
19	10	5.90	6.55
19	12	6.75	7.40
19	14	7.65	8.25
20	3	2.85	.....
20	4	3.30	.....
20	5	3.75	.....
20	6	4.20	4.80
20	7	4.70	5.30
20	8	5.20	5.80
20	9	5.70	6.30
20	10	6.20	6.80
20	12	7.10	7.65
20	14	8.00	8.50

New Cast Iron Pulleys

16-Z-181. Special Lot, we offer new machine moulded cast iron single belt pulleys in these sizes only, at bargain prices. When ordering advise size of shaft and whether keyseated or set screwed. This lot crown faces only. Shipped from foundry near Chicago.

Dia. In.	Face In.	Price Each	Dia. In.	Face In.	Price Each
4 1/2	4	\$1.50	12	6	3.40
4	6	1.40	12	8	4.55
4	6	2.00	14	8	2.70
6	4	1.75	14	6	3.45
6	6	2.20	14	8	5.00
6	8	2.75	16	8	3.25
7	3	1.60	16	6	4.70
7	6	2.30	16	8	5.90
7	8	2.90	18	3	3.35
8	3	1.75	18	5	4.35
8	6	2.65	18	8	6.70
8	10	4.10	20	6	5.50
9	4	2.20	20	8	7.45
10	3	2.20	22	6	6.85
10	6	2.90	24	6	7.55
11	6	3.00	26	6	8.30
12	3	2.30	28	5	8.15
12	4	2.75			

The Harris Clutch Pulley for Cream Separators



The best clutch pulley on the market to operate cream separator where power is used—picks up the load more gradually and evenly than any other make. The separator is started from rest and reaches its normal speed without a jerk or jar. This adds life to the separator and eliminates unnecessary repairs.

Is simple in design, easy to run; a child may operate it by simply tightening the hand wheel to start it and loosening same to stop it. Only four parts, including the pulley, to the whole outfit; will more than pay for itself in four months' running.

This type of Clutch Pulley also can be used on any other hand-power machine built that doesn't make more than about sixty turns a minute. Simply substitute the Clutch Pulley in place of the hand crank. Size, 14-inch Diameter; 2-inch Face.

Specify make of Sep'tor and size of Spindle. **\$5.25**

16-Z-1060. Weight 15 lbs. Price.....

South Bend Wood Split Pulleys

16-Z-29. A special lot of brand new wood split pulleys priced very low.

Wood Split Pulleys do not require either key seat or set screws. They fit to shaft by compression and will pull equally as heavy a load as an iron or any other kind of a pulley without slipping.

We recommend the use of Wood Split Pulleys in all dry places. If out of size ordered in this lot we will substitute overhauled wood split pulley of same size in good, serviceable condition at same price.

Dia. In.	3	4	5	6	8	10	12
9	\$1.25	.....	.....	.....	.....	\$2.20	\$2.50
10	1.30	\$1.35	.....	.....	.....	.....	.....
12	1.85	1.85	2.05	2.30	2.70	3.15	3.60
14	2.10	2.10	2.35	2.60	3.10	3.65	4.15
16	2.30	2.30	2.60	2.90	3.50	4.10	4.70
18	2.45	2.45	2.75	3.10	3.70	4.35	5.00
20	2.55	2.55	2.90	3.25	3.90	4.60	5.30
22	2.80	2.80	3.20	3.55	4.30	5.10	5.85
24	3.10	3.10	3.50	3.95	4.85	5.70	6.60
26	.....	3.85	3.85	4.35	5.35	6.35	7.35
28	.....	3.65	4.20	4.75	5.90	7.00	8.10
30	.....	3.90	4.55	5.15	6.40	7.65	8.90
32	.....	4.20	4.90	5.55	6.90	8.30	9.65
34	.....	4.50	5.25	6.00	7.50	8.95	10.45
36	.....	4.85	5.65	6.45	8.00	9.65	11.25
38	.....	.....	.....	6.90	8.60	10.30	12.05
40	.....	.....	.....	7.30	9.15	11.00	12.85
42	.....	.....	.....	7.85	9.85	11.85	13.85

Overhauled Steel Split Pulleys

16-Z-80. We are constantly receiving steel split pulleys in good, usable condition, which come to us in connection with our daily purchases of factories and complete plants. Steel split pulleys are furnished with bushings. Prices below save you a comfortable amount.

Diam. In.	3	4	5	6	8	10	12
9	\$1.90	\$2.05	\$2.20	\$2.35	\$2.55	\$2.95	\$3.25
12	2.10	2.30	2.40	2.65	2.90	3.25	3.85
14	2.25	2.60	2.85	3.10	3.55	4.00	4.50
15	2.35	2.75	2.90	3.30	3.85	4.40	4.90
16	2.50	2.90	3.05	3.45	4.15	4.75	5.25
18	2.80	3.20	3.50	3.85	4.65	5.35	6.00
20	3.00	3.75	4.05	4.50	5.35	6.00	7.15
22	3.25	4.30	4.75	5.15	6.00	7.05	8.40
24	3.75	4.45	5.00	5.50	6.60	7.85	9.55
26	.....	4.80	.....	6.00	7.20	8.55	10.65
28	.....	5.10	.....	6.45	7.75	9.10	11.45
30	.....	6.00	.....	7.05	8.65	9.95	12.40
32	.....	6.60	.....	7.75	9.70	11.25	13.45
34	.....	7.20	.....	8.65	10.90	12.75	15.00
36	.....	7.95	.....	9.75	12.00	14.35	16.90
38	.....	9.75	.....	10.90	13.20	15.55	18.60
40	.....	10.50	.....	12.00	14.25	16.90	20.10
42	.....	11.65	.....	13.15	16.15	18.75	21.75
44	.....	.....	.....	14.65	17.80	20.65	23.65
46	.....	.....	.....	16.50	19.50	22.50	25.15
48	.....	.....	.....	18.40	21.00	24.40	27.00
50	.....	.....	.....	20.45	23.65	26.65	29.25

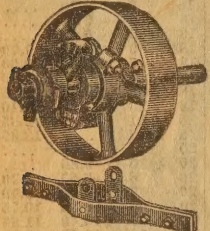
IF OUT OF OVERHAULED PULLEYS
we shall take liberty of substituting new unless advised otherwise.

Reeves Brand New Wood Split Pulleys



16-Z-75. Furnished complete with bushings and guaranteed to run perfectly true on shaft. Wood Split Pulleys do not require either key seat or set screws. They fit to shaft by compression and will pull equally as heavy a load as an iron. When placing order advise size of shaft. Also whether straight or crown face pulley is wanted; otherwise we will furnish crown face.

Diam. In.	3	4	5	6	8	10	12
3..	\$2.25	\$2.30	\$2.50	\$2.65	...	...	...
4..	2.25	2.30	2.50	2.65	\$2.95	\$3.30	\$3.60
5..	2.30	2.35	2.55	2.70	3.10	3.45	3.80
6..	2.35	2.40	2.60	2.80	3.20	3.60	4.00
7..	2.40	2.45	2.70	2.90	3.30	3.75	4.20
8..	2.45	2.50	2.75	2.95	3.45	3.90	4.40
9..	2.50	2.60	2.90	3.10	3.65	4.15	4.70
10..	2.60	2.70	3.00	3.20	3.85	4.40	4.95
11..	2.80	2.95	3.30	3.60	4.25	4.90	5.50
12..	3.00	3.20	3.55	3.90	4.65	5.35	6.10
13..	3.45	3.65	4.05	4.25	5.05	5.85	6.65
14..	3.70	3.70	4.10	4.55	5.45	6.30	7.20
15..	3.90	3.90	4.40	4.90	5.85	6.80	7.75
16..	4.15	4.15	4.70	5.20	6.25	7.30	8.30
17..	4.40	4.40	4.95	5.50	6.65	7.75	8.90
18..	4.65	4.65	5.25	5.85	7.05	8.25	9.45
19..	4.90	4.90	5.50	6.15	7.65	8.70	10.00
20..	5.10	5.10	5.80	6.50	7.85	9.20	10.55
22..	5.60	5.60	6.35	7.10	8.65	10.15	11.70
24..	6.15	6.15	7.05	7.90	9.70	11.45	13.20
26..	6.70	6.70	7.70	8.70	10.70	12.70	14.70
28..	7.30	7.30	8.40	9.50	11.75	14.00	16.25
30..	7.85	7.85	9.10	10.30	12.80	15.50	17.75
32..	8.40	8.40	9.75	11.10	13.85	16.55	19.30
34..	9.05	9.05	10.50	12.00	14.95	17.90	20.50
36..	9.70	9.70	11.30	12.90	16.10	19.30	22.20



FRICITION CLUTCH PULLEYS

For Line Shafts and Machines of all Kinds. The Friction Clutch Pulley, by its use a gradual starting or stopping of the pulley may be effected by throwing the lever in and out, also the reduction in cost of maintenance and saving of power. Lot No. 16-Z-200.

Furnished, complete with collar, lever and yoke. When ordering, advise size of shaft, H. P. and speed.

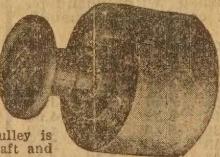
Diam. In.	Face In.	Price	Diam. In.	Face In.	Price
6	3	\$13.70	12	6	\$21.90
6	4	14.15	14	3	16.70
6	4	15.80	14	4	17.70
6	4	13.95	14	6	23.20
7	4	14.50	16	3	13.00
7	5	16.25	16	4	19.00
8	3	14.25	16	5	23.50
8	6	14.90	18	3	18.85
10	3	16.70	18	4	20.25
10	4	15.20	18	5	24.95
10	6	15.95	20	2	19.90
10	6	18.00	20	4	24.15
10	8	23.20	22	3	21.75
12	3	15.95	22	4	26.20
12	4	16.80	24	3	25.65

Write for Prices on Larger Sizes

GASOLINE ENGINE CLUTCH PULLEY

16-Z-291. This Clutch Pulley is compact and efficient; is inexpensive, and very simple; has fewer parts than any other clutch made.

Our Gasoline Engine Clutch Pulleys can be attached to any engine, new or old, by any one. The pulley is made to slip over end of shaft and fasten with key or set screws. Prices on larger sizes quoted on application.



Diam. Pulley	4	5	6	8	10	H. P. of Engine	Largest Bore
6	\$13.35	\$14.30	\$15.00	...	...	2 1/2	or less 1 1/2
7	13.70	14.85	15.45	...	...	2 1/2	or less 1 1/2
8	14.10	15.25	15.90	...	...	2 1/2	or less 1 1/2
8	16.65	17.80	18.45	...	...	6	or less 2 1/2
10	15.15	...	...	...	...	2 1/2	or less 1 1/2
10	17.65	18.95	19.75	\$22.20	...	6	or less 2 1/2
12	16.00	...	...	...	...	2 1/2	or less 1 1/2
12	18.55	19.95	20.90	\$23.65	\$26.90	6	or less 2 1/2
14	16.90	...	...	...	...	2 1/2	or less 1 1/2
14	19.45	21.10	22.20	25.30	28.80	6	or less 2 1/2

When ordering Gasoline Engine Clutch Pulleys, always state width and depth of key seat, diameter of crank shaft, length of projecting shaft, H. P. of engine and speed of engine.

Malleable Link Chain Belting



16-Z-809. Brand new, for use on Mowers, Reapers, Binders, Corn and Wheat Drill, Corn Shellers, Straw Stackers, Feed Cutters, Saw Dust Conveyors, etc.

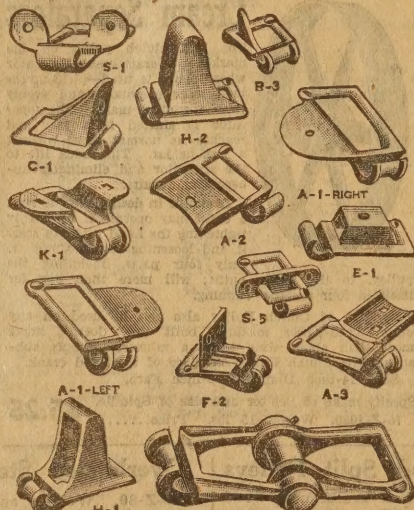
When ordering chain be sure and give number. If the chain is so worn that number is effaced, it is advisable to send a sample link.

No.	Links per Ft.	Working Strain	Approximate Leather Belting in Single	Price per Ft.
25...	13.3	75 lbs.	1 in.	\$0.13
32...	10.4	150 lbs.	1 1/2 in.	.14
33...	8.6	200 lbs.	2 in.	.13
34...	8.6	225 lbs.	2 1/2 in.	.15
35...	7.4	250 lbs.	2 1/2 in.	.16
42...	8.8	300 lbs.	3 in.	.17
51...	7.4	350 lbs.	3 1/2 in.	.14
51...	10.4	375 lbs.	3 1/2 in.	.20
52...	8.0	400 lbs.	4 in.	.20
55...	7.4	450 lbs.	4 in.	.17
57...	6.2	600 lbs.	6 in.	.21
57...	7.3	650 lbs.	6 1/2 in.	.23
67...	6.2	700 lbs.	7 in.	.25
77...	5.2	750 lbs.	7 1/2 in.	.27

Attachment Links for Chain Belting

MADE OF MALLEABLE

16-Z-23. Attachment Links are made to fit the sizes of chains as listed below, and must not be ordered, except to match the size we state they will fit. For example, it will be noticed that the H2 attachment is only made for No. 25 chain, and must not therefore be ordered to be used on any other size.



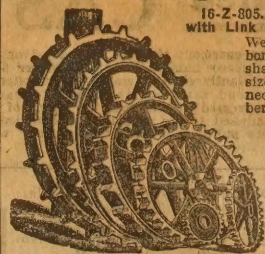
Chain No.	25 takes	A1-C1-H2-K1	A1-C1-E1-K1	A1-E1-K1-S1	A1-C1-E1-K1-S1	A1-C1-K1-S1	A1-A2-C1-E1-F2-G1-K1-S1	A1-C1-E1-F2-K1-S1-S5	A1-F2-K1	A1-C1-K1-K5-S1	A1-E1-F2-K1	A1-E1-F2-H1-K1-R3
32	"	"	"	"	"	"	"	"	"	"	"	"
33	"	"	"	"	"	"	"	"	"	"	"	"
34	"	"	"	"	"	"	"	"	"	"	"	"
35	"	"	"	"	"	"	"	"	"	"	"	"
42	"	"	"	"	"	"	"	"	"	"	"	"
52	"	"	"	"	"	"	"	"	"	"	"	"
55	"	"	"	"	"	"	"	"	"	"	"	"
57	"	"	"	"	"	"	"	"	"	"	"	"
62	"	"	"	"	"	"	"	"	"	"	"	"
67	"	"	"	"	"	"	"	"	"	"	"	"
77	"	"	"	"	"	"	"	"	"	"	"	"

Attachments for No. 25 and 32 Chain. Each..... 50
Couplers for Nos. 25 and 32 Chain. Per Pair..... 140
Attachments for Nos. 33, 34 and 42 Chain. Each..... 60
Couplers for Nos. 33, 34 and 42 Chain. Per Pair..... 160
Attachments for Nos. 35, 45, 52, 55 and 62 Chain. Ea. 8c
Couplers for Nos. 35, 45 and 55 Chain. Per Pair..... 170
Couplers for Nos. 51, 52 and 57 Chain. Per Pair..... 210
Attachments for Nos. 67, 67 and 77 Chain. Each..... 9c
Couplers for Nos. 62, 67 and 77 Chain. Per Pair..... 270

The Chain Couplers are a most useful device to place and connect link belting around the sprocket and have it without slack, and is equally desirable in taking it off the sprocket.

When ordering attachments A-1, A-2, A-3 or R-3, advise whether you want Right or Left Hand style.

Brand New Sprocket Wheels



16-Z-805. Used in connection with Link Belting.

We will furnish these based to fit any shaft not exceeding the size described, in connection with each number. In ordering be sure and state size of shaft and whether the sprockets are to be key-seated or set screws or both. Unless otherwise specified they will be furnished with set screws.

NO. 25-BORE 17-18 INCH AND LESS					
Dia. In.	Teeth	Price, Ea.	Dia. In.	Teeth	Price, Ea.
2	7	\$1.60	7 1/2	26	\$2.30
2 1/2	8	1.60	8	28	2.40
3	9	1.65	10	35	2.60
3 1/2	10	1.70	12	42	3.35
4	12	1.75	13	45	3.50
4 1/2	14	1.80	14 1/2	50	3.90
5	17	1.90	15	52	4.05
5 1/2	19	1.95	16	56	4.35
7	24	2.20	18 1/2	64	5.00

NO. 32-BORE 17-18 INCH AND LESS					
Dia. In.	Teeth	Price, Ea.	Dia. In.	Teeth	Price, Ea.
2	5	\$1.65	8 3/4	22	\$2.45
2 3/4	7	1.65	9	24	2.60
3	8	1.70	10	27	2.85
3 1/2	9	1.75	11 3/4	32	3.30
4	11	1.85	12 3/4	34	3.50
4 1/4	12	1.90	13 1/2	36	3.70
4 3/4	14	2.00	14	38	3.90
5 1/4	16	2.10	14 3/4	40	4.10
6	18	2.20			
7 1/4	20	2.30			

NO. 33 AND 34—BORE 17-16 INCH AND LESS					
Dia. In.	Teeth	Price, Ea.	Dia. In.	Teeth	Price, Ea.
2	5	\$1.70	10 1/2	24	\$3.10
2 1/2	6	1.80	10 3/4	27	3.45
3	8	1.90	11	30	3.80
3 1/2	10	2.00	11 1/4	34	4.20
4	11	2.05	11 1/2	36	4.45
4 1/2	12	2.10	11 3/4	38	4.70
5	14	2.20	12	41	5.05
5 1/2	15	2.30	12 1/4	41	5.15
6	18	2.50	12 1/2	44	5.45
6 1/2	19	2.60	12 3/4	54	6.50
7 1/2	20	2.70	13	64	8.00

NOS. 35, 45, 55-BORE 15-18 INCH AND LESS					
2 1/2"	5	\$2.00	17 1/2"	33	\$5.70
3 1/2"	7	2.10	18 1/2"	35	6.05
4 1/2"	9	2.20	20 1/2"	39	6.80
5 1/2"	11	2.35	21 1/2"	42	7.30
6 1/2"	13	2.50	22 1/2"	44	7.65
7 1/2"	15	2.75	23 1/2"	46	8.00
8 1/2"	17	3.00	24 1/2"	48	8.35
9 1/2"	19	3.25	25 1/2"	50	8.70
10 1/2"	21	3.60	28	54	9.50
12 1/2"	23	3.55	30	58	10.30
15	29	5.00	31 1/2"	60	10.80
16	31	5.35	36	69	12.80

NO. 4-BORE 1 11-16 INCH AND LESS					
2 3/4	6	1.85	9 1/2	22	\$3.10
3 3/4	8	1.95	11 1/2	26	3.60
4 3/4	11	2.10	12 1/4	28	3.80
5 1/4	12	2.15	14	32	4.25
6 1/4	14	2.30	15 1/2	36	4.60
7	16	2.45	18	41	5.45
8	18	2.70	20	46	6.15
8 3/4	20	2.90	24	55	7.40

NO. 52-BORE 11-16 INCH AND LESS					
2 1/2	6	\$1.95	15 1/2	32	\$4.95
3 1/2	8	2.00	17 1/2	36	5.00
4 1/2	10	2.15	19 1/2	40	6.25
5 1/2	11	2.25	22	46	7.25
6 1/4	14	2.50	23 1/2	49	7.80
7 1/2	16	2.70	24 1/2	51	8.10
8 3/4	18	2.90	25	52	8.30
9 1/2	20	3.15	26 1/2	55	8.80
10 1/2	22	3.40	27 1/2	58	9.25
12 1/2	26	4.00	28 1/2	60	9.60
13 1/2	28	4.30	30 1/2	64	10.35

NOS. 57, 67, 77—BORE 27-16 INCH AND LESS					
4 1/2	5	\$2.30	19 1/2	27	\$7.10
5	6	2.30	22	30	7.50
5 1/2	7	2.40	23 1/2	32	8.50
6	8	2.55	25	34	9.10
7 1/2	10	2.90	26	36	9.70
8 3/4	12	3.30	28	38	10.30
10 1/4	14	3.75	30	41	11.20
11 3/4	16	4.25	32 1/2	44	12.10
13 1/4	18	4.75	36	49	13.70
14 3/4	20	5.25	38 1/2	52	14.60
16 1/4	22	5.75	41 1/2	56	16.20
		6.75			

NOS. 62-BORE 27-16 INCH AND LESS					
3 3/4	7	\$2.15	12	23	\$4.10
4 1/4	8	2.20	13 3/8	26	4.55
5	9	2.25	14 3/8	28	4.90
5 1/4	10	2.35	16	30	5.35
5 5/8	11	2.45	18	34	6.10
6 1/4	12	2.55	20	38	6.90
6 3/8	13	2.65	21 1/2	41	7.50
7 1/4	14	2.75	23	43	7.90
8	15	2.90	25 1/2	48	9.00
8 1/4	16	3.05	30	58	11.80

Write for prices on No. 51 spro

Sensational Value Here

ALLIS-CHALMERS 10-18 H. P. FARM TRACTOR

Read Every Word—See What You Save

ALLIS-CHALMERS MANUFACTURING COMPANY

ADDRESS COMMUNICATIONS TO
TRACTOR DIVISION



CABLE ADDRESS
FOUNDERS

April 2, 1921.

Harris Brothers Company,
35th & Iron Streets,
Chicago, Illinois.

Gentlemen:

In acknowledging your letter for the purchase of our stock of Allis-Chalmers 10-18 Farm Tractors, we wish to congratulate you upon the opportunity afforded you to be of genuine service to the American Farmer. While these tractors are of a discontinued type, they have nevertheless proved to be highly satisfactory, and the basis on which you have procured them makes it possible for you to offer a value never before equaled, and we firmly believe that in announcing this job to the trade you will soon receive orders in excess of the number of tractors you have bought.

We further wish to advise that repair parts can always be obtained from our factory or any of our branch houses and we particularly wish to direct your attention to the fact that:

"The Allis-Chalmers Mfg. Company guarantees these tractors which you have purchased against defective workmanship and material and will continue the same guarantee on these tractors as we have in the past while we were selling them."

We selected your Company to market these tractors in recognition of your unexcelled facilities for reaching the greatest number of buyers in the most economical manner and, further, because we have every confidence in the policy of your Company to give each and everyone of its customers a "Square Deal."

Yours very truly,

Tractor Division ALLIS-CHALMERS MFG. CO.,
BMS/NB By B. M. Seymour, Manager.

This letter tells the story of our great purchase. It's the chance you've hoped and waited for,—famous, genuine Allis-Chalmers 10-18 H. P. Farm Tractor now yours, at a tremendous price reduction. More than half the original price is saved for you, by our fortunate arrangements. Buy this efficient serviceable tractor,—built to give you best service under most severe tests. Act quickly!

PRICE COMPLETE \$360
F.O.B. MILWAUKEE

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Our well known money back guarantee provides that every penny of your money will be returned, including any transportation charges you have paid, or we will exchange the tractor you have received for another, or satisfy you otherwise, if you are not entirely pleased with the Allis-Chalmers 10-18 H. P. Farm Tractor you receive.

HARRIS BROS. CO.

Allis-Chalmers Guarantee

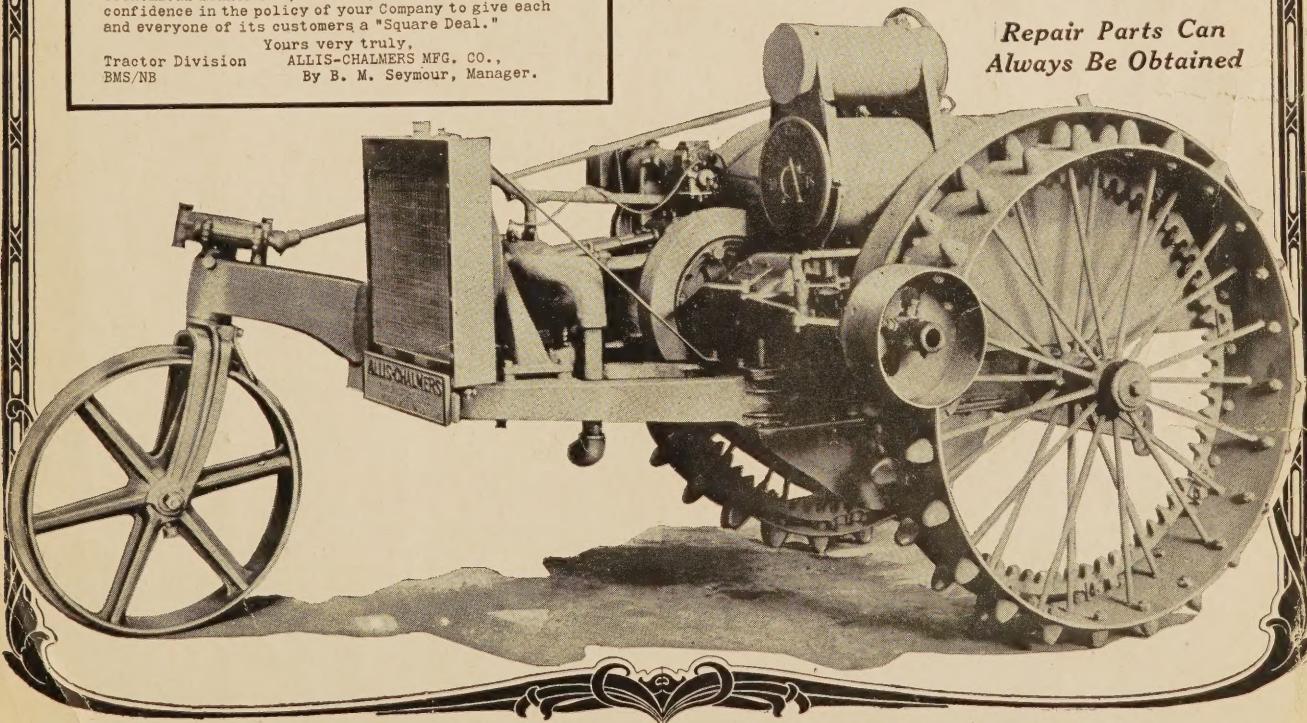
With each Allis-Chalmers 10-18 H. P. Farm Tractor purchased from Harris Bros. Co., you get our regular guarantee, against defects in material or workmanship. The Allis-Chalmers 10-18 H. P. Farm Tractor is guaranteed to be made of best material, and free from all defects, any part which breaks through from defects in material or workmanship, will be replaced at any time within one year.

ALL BRAND NEW
COMPLETE IN EVERY DETAIL
ONLY 99 LEFT FOR SALE

Terms for Responsible Persons

Persons of responsibility, who are anxious to own Allis-Chalmers 10-18 H. P. Farm tractors, will find us willing at all times to extend the payments over a reasonable time, and details can be arranged while your tractor is being prepared for shipment.

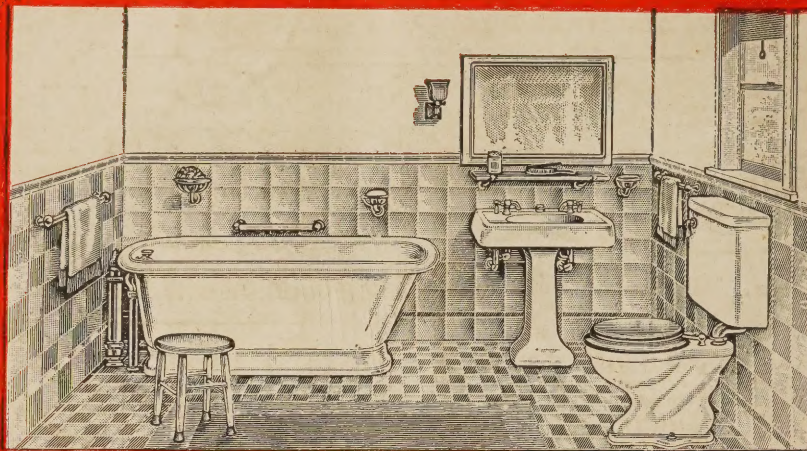
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THROOM COMBINATIONS FUNAPPROACHED MERIT!

The Coronation



\$140⁰⁰

Nothing has been spared in assembling the impressive "Coronation," to place before you during the period of this limited sale, an elegant bathroom outfit, guaranteed "A" grade in every way. We are able to offer them now at a big price advantage, due to a fortunate purchase completed just in time for this book. The reproduction above illustrates the beautiful design of all pieces, but you must see and examine the "Coronation" to fully appreciate what a wonderful value it really is.

The Bath Tub and pedestal base are cast in one piece, and coated with white porcelain enamel both inside and outside; it measures 5 ft. long, 30 in. wide, and is made with a 3 in. roll rim. Finest quality fittings are included with the tub, consisting of heavily nickel-plated brass ideal lifting waste, which does away with the troublesome chain and stopper; nickel-plated quick compression double bath cock, with white china handles, indexed for hot and cold water; nickel-plated supply pipes.

The Pedestal Lavatory, designed to match the tub is entirely covered with white porcelain enamel. Size of slab 20x24 inches, with oval bowl 12x15 inches and stands 31 inches high. It is fitted with nickel-plated Roman lifting waste,

nickel-plated supply pipes and nickel-plated faucets with white china handles indexed for hot and cold water.

The Closet Outfit is furnished with a white, vitreous china tank in mission style, and is fitted with compound elevated ball cock and nickel-plated supply pipe. Tank connects to bowl with nickel-plated 2-inch offset flush. The bowl is an improved Syphon Jet type, made of vitreous earthenware and is fitted with a practically indestructible seat and cover, finished in highly polished mahogany. Nickel-plated offset hinges attach the seat direct to bowl. The "Coronation" Bath Room outfit is furnished complete as described.

Order No. 5-Z-325 **\$140.00**

The Challenge Combination

\$65⁰⁰



*Substantial value is offered in this
Guaranteed "A" Grade Outfit*

No. 5-Z-326. Consists of white porcelain enameled bath tub, 5 ft. long and 30 in. wide. The tub is fitted with nickel-plated connected waste and overflow and nickel-plated double bath cock. The lavatory measures 17x19 inches, finished with white porcelain enamel, and is furnished with nickel-plated trap and nickel-plated compression faucets indexed for hot and cold water. The closet outfit includes a white vitreous earthenware wash down bowl and a highly finished golden oak tank, lined with heavy copper.

The "Challenge" Combination,
Complete as described..... **\$65.00**

The Crystal Combination

\$95⁰⁰



*An attractive outfit of unusual merit
Guaranteed "A" Grade Outfit*

No. 5-Z-327. A splendid combination of excellent quality and beautiful appearance. The white porcelain enameled tub is 5 feet long, 30 inches wide; fitted with nickel-plated supply pipes, connected waste and overflow and double bath cock for hot and cold water. Lavatory is white porcelain enameled; slab size 20x24 inches; nickel-plated supply pipes, trap and compression faucets indexed for hot and cold water. Closet outfit includes white vitreous mission style tank, fitted complete. White vitreous earthenware bowl of wash down type. Polished mahogany finished seat and cover.

The "Crystal" Combination, complete as described..... **\$95.00**